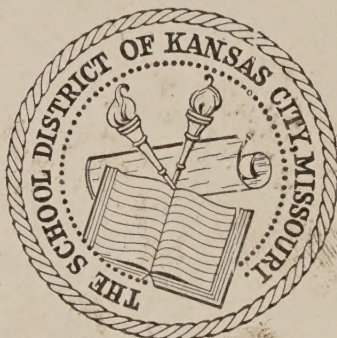


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AMERICAN MUNICIPALITIES

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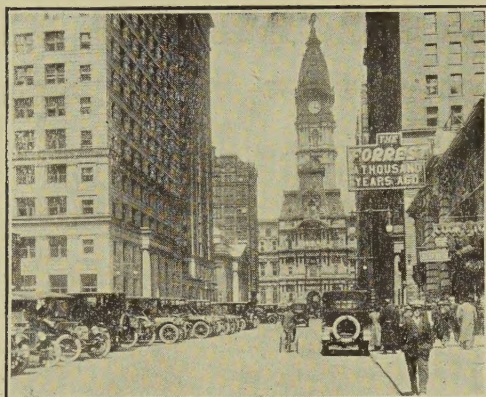
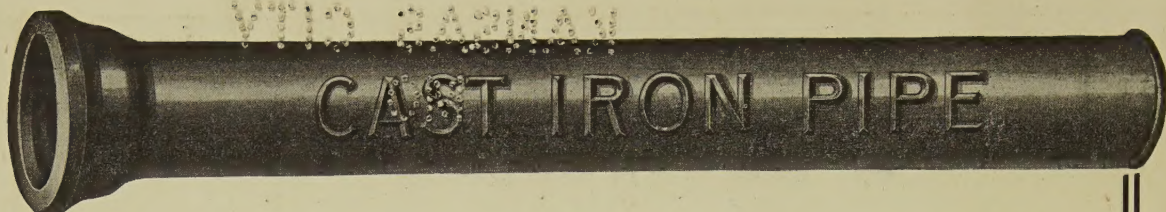
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Cast Iron Pipe Celebrates Its Centenary in Philadelphia

This was one of the first cities to use cast iron pipe—1817 was the date of its initial installation here, and pipe laid then shows no evidence of deterioration.

After the “experimental” stage was passed Philadelphia bought heavily of Cast Iron Pipe for both water and gas. The 3,231 miles now in use give a fair indication of the high regard in which the city officials hold it.

As a matter of fact Cast Iron Pipe has lasted *too* long in the busier sections of the city—recently some of it has been removed because of its obsolescence, and replaced by larger cast iron pipe.

Cast Iron Pipe Publicity Bureau.

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You can lay miles of pavements at a very low cost—

BUT—what is the result, you get a pavement which you cannot depend upon, one which quickly goes to pieces, and means a heavy maintenance expense each year.



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BITULITHIC is a pavement of dependability. It is composed of the highest grade of mineral aggregate and bituminous cement. Bitulithic is laid by paving experts. There is no scrimping on materials, the goods are in the pavement.

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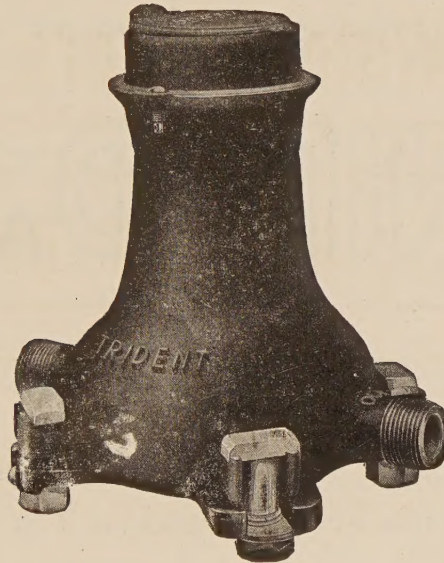
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They may cost you a trifle more than others
But in the judgment of the majority of Purchasers,
As evidenced by their unprecedented sale,
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Get Posted on Pavements

"When a thing is new, has a catchy name, and is put before the public with a hurrah, it is like the light of a candle to a moth. He burns his wings, and does it again and again."

Price Collier said this. He wasn't talking about pavements, but he might have been.

TRINIDAD LAKE ASPHALT

pavements are not new. They have been in successful use for nearly 40 years, and none of the many substitutes for this standard pavement has ever approached it in durability.

Everyone who is interested in getting good Pavements needs a copy of "Why Your Pavements Should Be Asphalt." It gives facts upon which the intelligent man can form his own opinion as to paving. Copies free.

The Barber Asphalt Paving Company
Philadelphia, Pa.

American Municipalities

October, 1917

Vol. 34, No. 1

Entered as second class matter December 1, 1911 at the Postoffice at
Marshalltown, Iowa, under the Act of March 3, 1879.

Published by
Municipal Publishing Company
Marshalltown, Iowa

Frank G. Pierce, Editor

Subscription Price, - - - \$1.00 per year
Advertising rates made known on application

TO MUNICIPAL OFFICIALS

Municipal officials receiving American Municipalities need have no fear of incurring financial obligations. If you are not a subscriber, either the municipality you represent is a member of one of the Leagues of Municipalities and you are entitled to a copy free, or the copy you receive is a sample copy.

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OUR ADVERTISERS

Every firm carrying an advertisement in American Municipalities is a leader in its line and officials will make no mistake in placing their orders with them. Without the support of the advertisers it would be impossible to publish this magazine and for this reason our readers should be interested in our advertisers. It is a good plan to help those who help you and you will be acting on this plan if you buy goods from our advertisers.

COMMENT

The convention of the League of Iowa Municipalities at Iowa City, was a most successful meeting in every way and everyone in attendance was well repaid for the time and expense necessary to attend.

The officials and people of Iowa City not only entertained the delegates most royally but took a personal interest in the meeting as well.

The president and faculty of the university also helped to make the convention a success and this co-operation was most valuable to the officers of the League.

The delegates enjoyed having Mr. C. H. Talbot of Lawrence, Kansas, the secretary of the League of Kansas Municipalities, present at the convention.

Mr. Talbot is one of the many live secretaries of state leagues and the Iowa League appreciates the attendance of such men at its convention.

Part of the proceedings at Iowa City are published in this issue and the balance will be published in succeeding issues.

Those officials who were unable to attend the convention should carefully read these papers and reports.

Every official should read the financial report of the Secretary and the report of the special legislative fund in order to know just how much money the League receives and how it is expended.

By reading the report of the special legislative fund it will be noticed that many of the members did not help in this matter and all the greater credit should be given to those cities and towns that did do their share.

Ames was selected as the next meeting place and this will give the delegates a chance to visit another of the state's great educational institutions.

Most of the members of the League of Iowa Municipalities have already sent in their dues for the current year and those that have neglected to should attend to this at once.

The work of the League is entitled to the financial support of every city and town in Iowa and the more funds the League receives the more work it can do.

If the officials of the members of the League would only take a little interest in securing advertisements for the official publication, we could soon enlarge the magazine and everyone would be thereby benefited.

Keep the magazine in mind and when a salesman calls on you suggest that his firm place an advertisement in American Municipalities.

COAL PRODUCTION

According to the United States Geological Survey about 70,000 more carloads of bituminous coal originated on 72 railroads in August 1917 than in August 1916. This ought to help the coal situation a little.

OLD TIMERS

Mayor F. K. Stebbins of Iowa City, joined with the mayors of five other Iowa cities in sending out a call for a meeting to organize a state league of municipalities just twenty years ago this fall. Mayor P. H. Cragan of Colfax, a delegate at Iowa City, attended the first meeting at which the League was organized. This certainly places these two men in the veteran class.

CLEAN-UP

There is a general idea that it is necessary to clean-up in the spring and then all right to let everything slide until the next spring. In many ways it is just as important to clean-up in the fall as in the spring, but the best plan of all is to keep clean. The money and time that you spend in keeping your city clean will be returned a thousand fold in the improved health of your people and in the satisfaction of living in a clean city.

DANCE ON PAVEMENT AT GRINNELL

Under the radiance of hundreds of incandescent globes, the open air dance tendered by the Elks of Grinnell on Monday evening, September 17, to the soldiers of Camp King-Abbott and their ladies, passed off with entire success. All found the paving on Fourth avenue on the half block which had been roped off for the purpose, an excellent dancing floor.

Someone who was watching the dancing at the open air party last night made a good suggestion. It would have been a fine idea to take a

flash light picture of the dancing throng and send it to Contractor Horrabin to illustrate the fact that the oldest paving in Grinnell, after eight years of business traffic, was still smooth enough to serve as a dancing floor. The fact that this is so is a compliment both to bitulithic paving and to Contractor Horrabin, and those who know say that it wasn't such a bad floor, either.—Grinnell Herald.

CHECK UP EXPENDITURES

Now is a good time to check up your different funds and see whether or not you can go on at the present pace and still have a balance next April. Every city and town should live within its income, and if you will check up your funds now you might be able to cut down your expenses where necessary and have the satisfaction of reporting no over drafts next April. Take a little time and find out just how you stand.

WHAT ARE YOU DOING?

You should carefully consider all your circumstances and decide whether or not you are doing all you should do to assist our country in the present war. It might be that you are busy with your usual work but you should do something to help the general cause. If nothing else, you can at least help in food conservation and this is one of the most valuable ways in which any one can help. Do something for your country. Make America safe for Americans.

MONTICELLO LIBRARY



The people of Monticello adopted a different style of building for their library than that usually selected and the result is certainly pleasing.

Delegates of Twentieth Annual Convention

League of Iowa Municipalities, Iowa City, September 18, 19 and 20, 1917

B L VonHousen, Milford, councilman
 Chas P Chase, Clinton, consulting engineer
 Homer Talbot, Lawrence, Kansas, secretary L of K M
 Guy J Tomlinson, Cherokee, city solicitor
 Wm Shardlow, Cherokee, city clerk
 P H Cragan, Colfax, Mayor
 C D Jory, Sheldon, city solicitor
 J A DeWitt, Sheldon, councilman
 John Barrick, Bennett, mayor
 Chas McQuiston, Colfax, councilman
 Wallace H Hay, Chicago, Illinois, Neptune Meter Co.
 F H Merritt, Milford, councilman
 S A Holcomb, Milford, councilman
 J D Glasgow, Washington, president of L of I M
 H O Willoughby, Grundy Center, attorney
 G W Pound, Iowa City, trustee
 C O Paine, Iowa City, councilman
 B Dailey, Milford, councilman
 J H McNeill, Sanborn, mayor
 John Berwald, Davenport, mayor
 T H Dondore, Iowa City, assessor
 J F McAnaney, Council Bluffs, auditor
 F K Stebbins, Iowa City, mayor
 F C Carson, Iowa City, Alderman
 Swan Nelson, Manson, councilman
 John Hock, Manson, councilman
 Guy L Pond, Shenandoah, alderman
 Chas Emmerling, Gladbrook, mayor
 T J Reeves, Hawarden, city clerk
 G E Ward, Sioux City, councilman
 M B Snyder, Council Bluffs, mayor
 E V Gustafson, Council Bluffs, clerk
 W R Law, Waterloo, mayor
 D L Degon, Waterloo, auditor and clerk
 Henry Polders, West Liberty, mayor
 R J Andrews, Sioux City, mayor
 A C Dehner, Iowa City, councilman
 W H Conner, Fairfield, councilman
 C M Undegraff, Iowa City, solicitor
 Paul Coleson, Fairfield, city clerk
 C J Gilly, Fairfield, street commissioner
 Ralph H Munro, Fairfield, mayor
 Ed Farrell, Manning, mayor
 John Hoffman, Manning, councilman
 John Langstrom, Council Bluffs, alderman
 Wm Schmidt, Council Bluffs, engineer
 C M Conway, Shenandoah, city clerk
 Ed O Matsch, Burlington, councilman
 F M Weber, Albia, alderman
 R F Shirley, Spencer, alderman
 E E Bender, Spencer, mayor
 Jas M Bell, Burlington, mayor

Frank Canny, Burlington, councilman
 Ben P Poor, Burlington, city solicitor
 B F Stedman, Dubuque, supt. waterworks
 William H Gosch, Davenport, alderman at large
 J H Gundaker, Davenport, assessor
 R E Sanvistosky, Davenport, city engineer
 R C Graham, Davenport, building inspector
 Fred Townsend, Albia, city solicitor
 Steele Blake, Perry, city solicitor
 Thos O Kennedy, Davenport, health officer
 A B Maxwell, Ames, city clerk
 George E Baker, Ames, mayor
 W L Allen, Ames, councilman
 Wm Mueller, Davenport, councilman
 John Knostmann, Davenport, councilman
 Peter Denger, Davenport, councilman
 Julius Jehring, Davenport, councilman
 John Herneg, Davenport, councilman
 Parley Sheldon, Ames, ex-president of L of I M
 J W Crowley, Davenport, commissioner of public works
 Charles L Lindholm, Davenport, alderman
 Henry A Meyer, Maquoketa, councilman
 P Hixon, Tama, mayor
 Chris Kuebl, Davenport, alderman
 Jacob Friedman, Dyersville, alderman
 J E Engel, Palo, mayor
 F H Kirchner, Lone Tree, alderman
 T A Potter, Mason City, mayor
 G O Gould, Mason City, commissioner
 W C Morden, Maquoketa, mayor
 C S Adams, Madrid, clerk
 S S Menefee, Ottumwa, commissioner
 C F Lambert, Kansas City, Missouri, cons. engineer
 J F Ford, Fort Dodge, mayor
 A H Northrop, Fort Dodge, commissioner
 R Buckwell, Decorah, alderman
 D C Faber, Ames, industrial engineer of I S C
 I E Perry, Cedar Falls, councilman
 F W Schreiber, Cedar Falls, councilman
 M A Thorp, Earlham, superintendent of water and light
 Robert Ely, Mt. Pleasant, alderman
 M VanDoorninck, Pella, alderman
 George Gallarno, Des Moines, state municipal acct. dept.
 I E T Wilson, Winterset, mayor
 H D Lucas, Madrid, councilman
 J Lindley Coon, Newton, mayor
 W W Waddell, Eagle Grove, councilman
 J T Johnson, Eagle Grove, councilman
 H C Hansen, Clinton, mayor
 T M Corsen, Clinton, councilman
 George C Chatterton, Clinton, councilman
 Otto Hile, Boone, city clerk

Guilford H Sumner, Des Moines, sec. state bd of health
 Emil C Bonigel, Bettendorf, councilman
 C J Kuehl, Bettendorf, councilman
 B J Messer, Bettendorf, councilman
 Adrian Cross, Perry, city clerk
 V H Currie, Laurens, city engineer
 C G Johnson, Madrid, councilman
 C A Brust, LaPorte City, councilman
 C D Shippy, Oelwein, city clerk
 J A Urmson, Alden, Councilman
 Dr F L Blair, Lytton, mayor
 Dr E C McClure, Bussey, city physician
 Wm B Stiker, Ottumwa, city physician
 F E Blackstone, Garner, mayor
 M N Zeiger, Garnavillo
 Henry Peterson, Council Bluffs, solicitor
 J K Baker, Eagle Grove, councilman
 J C Miller, Littleport, mayor
 C A Wegener, Littleport
 M G Lloyd, Washington, D C, bureau of standards
 I E Dierdorff, Davenport, George M Betchel & Co
 J J Stearsen, Chicago, Illinois, Hersey Manufacturing Co
 Jas Lukavsky, Lone Tree, mayor
 Wensel Soukuy, Lone Tree, councilman
 Don Green, Minneapolis, American LaFrance Co
 R L Koch, Spencer, councilman
 W C Ramsay, Belmond, mayor
 E E Kinney, Belmond, councilman
 Jno F Scarborough, Bloomfield, city attorney
 E C Berry, Bloomfield, councilman
 Ira C Baldrige, Bloomfield, councilman
 Will M Rider, Garwin, mayor
 H G Conger, Des Moines, A T and T Co
 J D Ellsworth, New York, A T and T Co
 O K Mauck, Washington, mayor
 Ray B Lemley, Washington, councilman
 H A Dougall, Washington councilman
 Silas Ross, Washington, councilman
 E J Besdo, Washington, councilman
 A L Wheeler, Mason City, health officer
 M Czizek, Dubuque, city attorney
 W A Evans, Chicago, Illinois, Chicago Tribune
 S H Reilly, Marshalltown, mayor
 J I Bell, Marshalltown, councilman
 W H Steiner, Marshalltown, city engineer
 W H Heller, Remsen, physician
 E T Allen, Muscatine, street commissioner
 W F Hathaway, Muscatine, councilman
 J C Crellin, Marshalltown, councilman
 F E Tenksbury, Muscatine, city engineer
 Ralph U Thompson, Muscatine, city attorney
 G Allbeer, Muscatine, assistant city attorney
 R M Like, Muscatine, city contractor
 J H Harvey, Newton, councilman
 T H Pickens, Newton, street commissioner
 Samuel Lestor, Newton, councilman
 Roland S McNutt, Muscatine, mayor
 W H Graff, Muscatine, alderman
 John A Vetter, Muscatine, alderman
 H F Meyers, Muscatine, alderman

J S Nietzel, Muscatine, alderman
 J J Brown, Muscatine, fire chief
 C E Wright, Clear Lake, health officer
 F H Karsten, Marengo, alderman at large
 A F Miller, Chicago, Illinois, The Barrett Co
 W A Gill, Waterloo, J Baker, Jr
 Carl Ascheubrenner, Pella, health officer
 D Sullivan, Marengo, alderman
 H W Grefe, Des Moines, asst. secy. state bd. of health
 J C Stom, Wayland, health officer

SEPTIC TANK LITIGATION

Every city and town having a sewage disposal plant that was constructed before October 1916, should join the National Septic Process Productive League in order that they may have any suits brought against them for patent infringement defended by that organization.

CITY HALL FOR HAWARDEN

The city of Hawarden has taken advantage of the law passed by the last General Assembly and voted bonds for a city hall and civic center.

PARK SCENE IN LAKE VIEW



Even the small cities and towns in Iowa are maintaining parks, some of them real beauty spots as shown by the view above in the park at Lake View.

MILFORD

Milford has just commenced the construction of a complete sanitary sewer system to cost about \$40,000. Notwithstanding that labor is scarce and materials advanced a price was secured that is regarded as very reasonable by the engineer and council and is considerably below the figures being paid in surrounding cities.

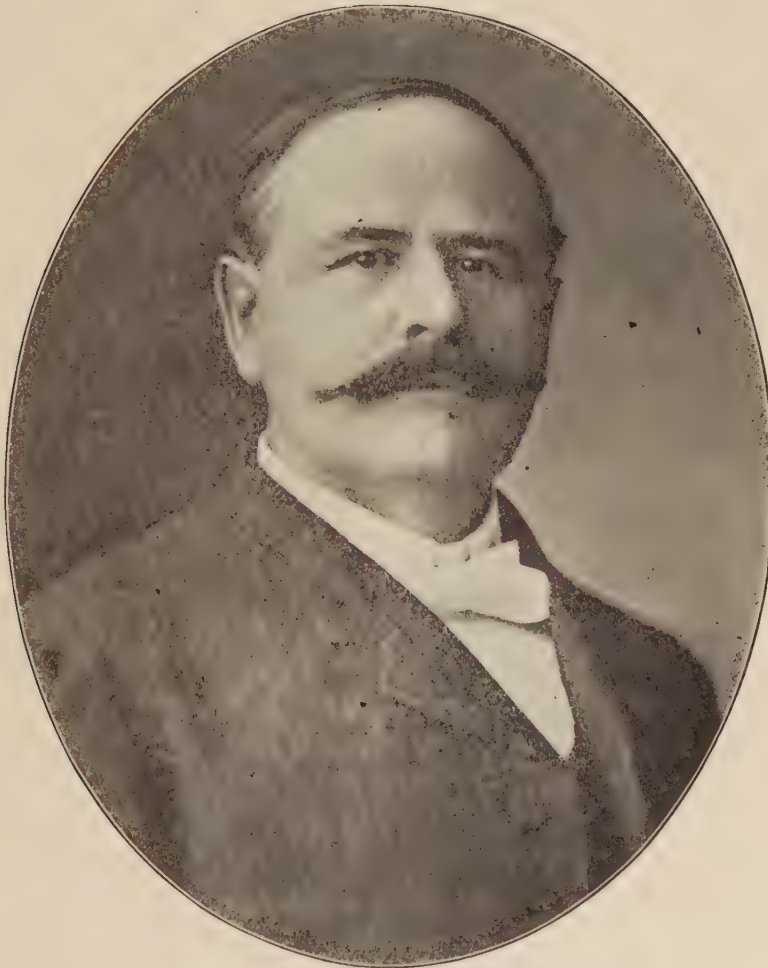
Iowa City Extends Welcome

Mayor F. K. Stebbins of Iowa City to Delegates of the League of Iowa Municipalities

On behalf of our citizens, and our commercial interests, I welcome you to Iowa City.

Our commercial interests are represented by a club with a membership of two hundred and seventy-five business and university men. The entire time of the Secretary, with the assistance of a corps of enthusiastic officers, direct the affairs

in addition to speeches by gentlemen of note in the arena of oratory, a round table, consisting of five or six gentlemen from the university, under the direction of Professor Klingaman, will be held. These men are specialized in many of the departments of municipal matters in which we are all interested, and the delegates are earnestly



Mayor F. K. Stebbins, Iowa City

of the business world of Iowa City, and I assure you great good is accomplished.

You are invited to be the guests of the commercial club at a banquet to be held tomorrow evening at the new rooms of the club, and in

urged to take part in this round table, by asking these gentlemen any questions pertaining to their department.

This feature of tomorrow evening's program has suggested a matter that your secretary was

working on a number of years ago. That was a sort of permanent municipal board or commission to be maintained by the state, where city officials could go for information along municipal lines. It was felt at the time, that a board of this kind would be of great value to the cities of Iowa. This is particularly true of the smaller cities and towns, as many of them do not enjoy the services of an engineer and city attorney, and we have only to look back a few years and note many mistakes that have been made that could have been obviated, could we have had expert advice.

Some of you possibly remember that a few years ago quite a number of the cities of Iowa caused to be laid a cheap grade of asphalt paving. This pavement, in many cases, was worn out before the property holder had paid the bonds that had been issued in payment of the same.

THE HEALTH OFFICERS

The health officers of the state are to hold their annual meeting in Iowa City this week, and you will notice by your program that they are to hold a joint session with the Municipal League tomorrow at one o'clock p. m. This meeting will be of great importance to every member of the League, and ought to be fully attended. There is, perhaps, no duty devolving upon the mayor of the city, as exacting as that of the Board of Health, and the official relations between the mayor and health officer should be not only confidential, but they must work together in every possible manner. This is particularly true in matters pertaining to contagious and quarantinable diseases, as the average citizen does not always take kindly to the restraint that quarantine imposes, and unless the mayor will stand back of the health officer in matters of this kind, great damage may be done. And then again, it is sometimes difficult for one who is a layman in matters of law, to tell just exactly what the law is in Board of Health matters.

There are three matters to be taken into consideration; the statutes of the state, the rules of the State Board of Health and your city ordinances. And there are times when rules or regulations creep into the different codes that conflict with each other, and it is often a closed question as to just what the law is. In fact, the average citizen sometimes feels that we have too much law.

PROGRESSIVE IOWA CITY

You will find in Iowa City a modern up-to-date city. In fact, we have had very nearly everything that the word modern implies. We have about 29 miles of paved streets; 31 miles of sanitary and storm sewers, and 70 miles of permanent sidewalks. We are just finishing the second concrete bridge over the Iowa river; we have a street railway system going into each of the different parts of the city; we have an eighty acre park in the northwest part of the city, upon two sides of which flows the Iowa river. This park will in time, be one of the beauty spots of the state. Our streets are electric lighted; we have an up-to-date gas plant and also a water plant, although these utilities are privately owned. We have one boulevarded street running east from the University Campus, that is perhaps the most beautiful street in Iowa.

Nature was very kind in laying out Iowa City. In fact, it would seem as though an engineer would not be needed to shape matters for an ideal city, but you all know the City Engineer, and of course recognize that Mother Nature will stand no show in opposition to his science.

Iowa City is really a city of homes, and you can appreciate this fact when I tell you that about two thousand of the more than three thousand students who come to Iowa City each year, room with private families.

You are to be given an opportunity to see our city tomorrow afternoon by automobile rides, and I trust you will all avail yourselves of this opportunity.

MUNICIPAL GOVERNMENT IN IOWA

The question of municipal government is one that does not seem to get very far in Iowa. We have practically three plans; the first, to be well shaken before taking, being the system of councilmen representation for each ward and a mayor. The second being the commission plan, which consists of a mayor and councilmen—the councilmen being elected regardless of ward boundary lines; and the third, being the commission manager plan. Each of these three plans have some good points, and some possibly not so good.

When the commission plan was first suggested, it was felt that we had reached a perfect plan, and, generally speaking, the cities that have

tried it seem to be fairly well satisfied, although we have heard some complaints. Taking the question of municipal government as a whole, it would seem as though the man secured is of more importance than the plan. And then, again, it seems unreasonable to expect men to give their services without paying what the same would be worth in other pursuits.

The question of municipal finances is one of the annoying problems of the present time. The demands of the citizenship seems to be in excess of the powers of the city council to levy taxes, and at every session of the legislature, innumerable bills are passed for the purpose of legalizing warrants and bonds that have been issued in excess of the amount allowed by statute. This is an unfortunate condition, and should not prevail. It is piling up an indebtedness for future generations to take care of, and it is reasonable to assume that they will have all they can do to take care of the obligations of their own time. And, then again, the question of the annual payment of interest must be taken into account. The whole trouble seems to be that in many of the funds, the powers delegated to city councils to levy taxes are no greater than they were twenty or twenty-five years ago, and it is not reasonable to expect the affairs of a municipality to be operated as cheaply as they were twenty-five years ago.

Now, gentlemen of the convention, this is the second time Iowa City has been privileged in entertaining the League of Iowa Municipalities, and I assure you we esteem it an honor for the reason that there is no branch of our body politic that is in as close touch with our citizenship as the municipality.

I have refrained from saying anything to you regarding the greatest of Iowa City institutions, namely the State University of Iowa, for the reason that the president is to follow me in welcoming you to Iowa City and the university in particular, and as you are all interested in the affairs of this, one of the greater of Iowa institutions, you will be highly entertained. You will notice by your program that you are to visit the State University tomorrow afternoon, and when you come to the Old Capitol Building situated in the center of the University Campus, if you will gaze back through the sacred vaults of memory to the time sixty-five or seventy years ago when the Old Capitol Building was the seat of

government of the then new state of Iowa, and see the pioneers of that time struggling for a mastery of the soil; struggling that the foundations of statehood might be well laid, and if you will compare that time with the Iowa of today—Iowa with her churches, her schools, her great institutions of learning, her supremacy in agriculture, her untold wealth,—Iowa standing without a peer in the great galaxy of states, you cannot but feel that those hardy pioneers builded better than they knew. You cannot but bow in homage to the great representative form of government under which we live.

Gentlemen of the convention, it is the earnest desire of our citizens that your stay in Iowa City will be not only a pleasure to you all but when you return to your homes, may you carry with you some thought, some inspiration, that will be productive of great good to the municipalities of whom you are the honored representatives.

CHEROKEE, IOWA

During the past year we have not done much in the way of street improvements, having let a contract for 800 feet of sewer and for about 8000 feet of curb and gutter on unpaved streets; we put in only a short stub of 4 inch water pipe, and have fixed up the streets which are unpaved in good condition for travel.

We have put up "Don't Park Signs" in a number of places. Through the aid of the Commercial Club it has been possible for the city of get a power street flusher with which we wash our paved streets; the flusher has a gasoline engine that furnishes the power to drive the water. About the first of August, city closed a contract for 75 H. P. American La France Type No. 40, combination chemical, hose wagon and junior pump combined; this junior pump will throw a steam of 300 gallons per minute at 120 pounds pressure.

Early in July we started our electric pumping station, having installed a Style 5 No. 3300, Gould's centrifugal pump, two stage, capacity 500 gallons per minute and this can be increased if necessary to a maximum of 750 gallons when all conditions are right; to this pump we have direct connected a 50 H. P. Allis Chalmers motor; we constructed a separate station from our steam driven pumps and plan later on to install another unit in this station.

No paving work done this year, on account of the high cost of material and labor.

President Glasgow's Annual Address

Hon. J. D. Glasgow Reviews Work of Past Year

It is with a feeling of regret that I prepare this paper, closing, as it does my connection with municipal affairs, after 18 years of service as a municipal official. Eight years of that time was spent as City Treasurer, four as Councilman and six as Mayor. In that time I have witnessed many changes in the cities of Iowa.

mud in the business section of Washington, and I expect others here have had similar experiences. It is truly wonderful, when we look back and see the progress and development that has been made by our Iowa cities. Now, you do not find a city or town, but what has miles of first class pavement, or has well graded oiled streets.



Hon. J. D. Glasgow, Washington

I can remember when the farmers came to town in the springtime with the front part of the running gears of a wagon, pulled by four horses. I have seen empty vehicles stuck in the

Black Iowa mud no longer has its terrors for the Iowa farmer, it no longer keeps him at home, or makes him get out the old cart to get to town. It can rain torrents, and a few hours

sunshine makes our splendid Iowa roads fit for travel in any kind of a vehicle.

Iowa has progressed in the last twenty years, and it has been a conservative progressiveness. Our improvements have been accomplished without great increase in tax levies. Efficiency has marked the management of city governments of the state. Cities and towns have acquired control of public utilities and the financial result has been very gratifying, not only to the local treasury, but to the residents as well. The influence of municipal owned lighting and water plants had had a wholesome effect in regulating prices among privately owned utilities. Regardless of the propaganda circulated by the utility corporations, municipal ownership of all lighting and water systems has been proven a success. I am ready to advocate the acquiring, by the cities of Iowa, of the telephone exchanges, as the solution of the telephone proposition. It would seem from court decisions that cities now have practically no control over phone lines, and relief must be found in some way. Practically all the cities of Iowa, of any size find themselves without franchise control over telephone companies. It was this reason that caused the officers of the League to withdraw their opposition to the bill placing telephones under the control of the Rail Road Commission, feeling that control of some kind would certainly be better than the present status of affairs. After the elimination of the perpetual franchise and other objectionable features from the proposed bill, it was thought it might afford relief, but the bill was defeated in the senate by influences and by men whom we all know, some of them occupying high offices in our public life. It was these same men and these same influences that accomplished the defeat, for the second time, of our Home Rule measure. It is only charity, and the fact that this is my final paper before the League, that prevents me from giving you a little insight into the methods and means employed to defeat measures looking toward the administration of city government in a more efficient manner, and with less expense to the taxpayer. It is a sad travesty on the intelligence of our Legislature that manipulation can be made so easy.

Bill after bill has met defeat at the hands of influences that want to make it as hard and as expensive to administer city affairs as possible. If

any city administration had the records of the last two sessions of the Legislature, it would hardly be necessary to wait until the next election before securing a new set of officials.

But, what's the use of harping about it, it will do no good. I can only say that I feel sorry for any man or set of men who would sell their birth right for a mess of pottage, or who would sacrifice the interests of the citizens of the State for their own financial betterment or political advancement. We have men high in power in state councils who are dangerous, and who care not one whit for the passage of legislation tending to make our cities better to live in, and to lighten the burden of the men who earn their dollars by the labor of their hands.

I will not speak of the legislation that was enacted at the last session of the legislature, as I believe that will be fully covered by the chairman of the Legislative committee. I want to dwell on things that I believe are of more vital importance at this eventful time. The cities of Iowa, as of every other state, are up against some hard problems.

The prices of food stuffs has increased to such an extent that there will undoubtedly be suffering during the coming winter. The wages of the working man and of the clerk have not kept pace with the advance in the cost of living. The League has done its bit in trying to regulate the price of coal, by employing Mr. Clifford Thorne to represent it in Washington D. C. before the proper committee. It is hoped some good results may be attained.

As municipal officials, I believe that we should take an active part in food price regulation. It matters not whether there is a specific law for us to do so. If it is possible in any way to do anything to lessen the burden for our citizens, do it and fight out the legal part of it afterward. If there was a logical reason for the advance in the price of coal and other commodities I would not advocate that the city officials should take a hand, but feeling as I do, that the war scare has caused manufacturers, jobbers and some retailers to take advantage of every opportunity to enlarge profits, I believe it a part of our duty to exceed our authority for the good of the people.

We are now trending, rapidly toward socialism, and if it were not that many of the

elements of that party at the present time are not of the best, it might not be a bad thing to do. Something will have to be done, and the past inertia of the government in these matters does not give much promise for the future. To get my idea in plain english, I believe the mayors of the cities of Iowa should see that all staple commodities such as coal, flour, potatoes, meat, eggs, poultry and any other food stuffs are sold as cheaply in one city as in another. I believe it wise for the officials to familiarize themselves with prices obtained in their neighboring cities, by some method, possibly by an exchange of information with other mayors. When there is any radical difference, it should be the duty of the mayor to find out the reason and try and remedy it.

A concerted action of the city officials of Iowa along these lines will not only allow the retailer to purchase his goods at a more reasonable figure, but will also prevent advantage being taken of the consumer. I am well aware that this is radical advice, but the exigencies of the hour demand summary measures. There are organizations to look after the manufacturer, the wholesaler, the retailer, but the ultimate consumer, the man who pays the bill, must take what he can get. There is no organized effort to protect him, and a reading of the papers the last few months will convince the most skeptical that government relief is more or less of a mirage.

The retailer must have a sufficient profit to do business, and I do not want to be understood as advocating anything to his detriment, but I ask that prices in our different cities shall be comparative. I have only this criticism to make of the retailer, I believe his influence has been of an upward tendency with reference to prices and this would be only the natural outcome of modern business education. No one can object to fair treatment, and I believe our duty as executives of all the people demands our influence toward making our cities better to live in, by letting the laboring man, the professional man, the clerk, the banker, the dressmaker and the woman at the tub, know that we are using our best efforts to help them tide over this war period, and live in a manner befitting their station in life, and with the least possible discomfort to themselves and their loved ones.

No period of public life has been so full of

duty to be performed as that of today. We are on the eve of one of the most gigantic tasks ever undertaken by any nation. We have already given millions of our untold wealth. We have been the good samaritan to the allied nations of the world. The United States has responded to every call that has been made. Millions for every movement that will make the burden lighter for our soldiers. Some have not fully awakened to a realization of what the task is that the United States has undertaken. It is a fact that our people are not fully aroused, but when the boys go over the top in France and the casualty list appears in the papers, then, you will find the same old wave of patriotism sweep over the nation, that followed the slogan "Remember the Maine" on that spring morning in '98. We are not lacking in patriotism, it is only that we dislike to think of war. Were it near at hand the result would be different. I feel sure that there are no slackers among the municipal officials of Iowa. I know that mayors have been in the front rank of workers.

I want to urge on every city official here the importance of standing by the President, and by our governor in their efforts to do all that can be done to stimulate patriotism, rid the nation and our State of the slacker and the pro-German. It has come to a pass where the pacifist and the German sympathizer have got to be handled without gloves. We of this country, regardless of our ancestors, are Americans. We believe in upholding American principles, and protecting Americans wherever they may be, and in this war we are not only fighting for our men who were killed, but are also fighting for those same mighty principals that caused George Washington and his brave men to leave bloody footprints in the snow at Valley Forge and endure untold hardships, that those principles written in the Declaration of Independence might be forever emblazoned on our nation's history. We have got to make this country forever safe for democracy. This war must be fought to the utter annihilation of the Hohenzollern dynasty, and let those of us who cannot be with the army, talk patriotism, and tell them what will happen when our brave boys go over the top. I urge that all city officials give all possible assistance to the council of defense in their respective localities. There will be plenty to do, and I know that no member of the League will do less than his duty in upholding the honor of his city and state.

Report of Secretary-Treasurer

Frank G. Pierce, Marshalltown, Secretary League of Iowa Municipalities

The representatives of the cities and towns of Iowa are once more gathered together in annual meeting to consider the problems that constantly confront them and to decide ways in which these difficulties may be overcome.

The problems of municipal government are more varied, and the need of their successful so-

municipal official should use every possible means to improve his knowledge and make it possible for him to solve the difficulties that arise in an intelligent and satisfactory manner. Through the enthusiastic work of the representatives of the cities and towns of Iowa in their annual conventions and their continual loyal support, conditions



Frank G. Pierce, Marshalltown

lution more pressing, than those of any other department of our government, because these problems are the ones that affect the people in their everyday affairs. The muddy crossing means more to a well-dressed woman than an increased tariff on sugar, and defective sanitation means more to the health and happiness of the people than the passage of a billion dollar revenue law by the national government.

It is especially fitting therefore, that every

in this state have reached a stage where Iowa municipalities are universally acknowledged as in the foremost rank of progressive and successful municipal administration. Through the League of Iowa Municipalities and its annual conventions, more than to any other one agency, is this present high position among the municipalities of the country made possible.

The League has once more had a most successful year. It has been successful in all its

departments of work, and is today held in higher estimation by the people of the state than ever before. This condition is only possible through the loyal support of the League and its officers by the cities and towns of Iowa.

FINANCIAL STATEMENT

For several years past, the League has been somewhat handicapped, so far as finances are concerned, by the necessity of paying off quite a large debt incurred in the suit, brought several years ago, against the Executive Council. This debt has been wiped out in the last year and all obligations of every kind and nature have been paid, so that the League enters the coming year with no liabilities and the outlook bright for an increased income.

The financial statement for the past year is as follows:

RECEIPTS

From dues.....	\$4832 50
From interest on deposit.....	25 00
From rebate, Special Legislative Fund	25 63
Cash on hand, beginning of the year	212 66

Total Receipts..... \$5095 79

DISBURSEMENTS

Convention expense.....	\$ 186 66
Legislation expense.....	389 95
Postage.....	293 78
Printing.....	183 45
General.....	96 60
Executive Council Suit.....	350 00
Telephone.....	13 92
Secretary's Salary.....	1300 00
Publication.....	2260 40

Total Disbursements..... \$5072 96

RECAPITULATION

Receipts.....	\$5095 79
Disbursements.....	5072 96

On Hand, Sept. 1, 1917.....\$ 22 83

I file with this report all receipt stubs, voucher checks and books, and ask that they be referred to the Auditing committee. The itemized statement of disbursements and receipts will be published in the October issue of American Municipalities for the information of all of the officials of Iowa, not only those who are present at this convention, but to all of those whose municipality holds membership in the League of Iowa Municipalities.

SPECIAL LEGISLATIVE FUND

In accordance with the action taken at the annual convention a year ago, the Legislative committee of the League at its first meeting in January of this year, formulated a plan of financing the work of this committee. It was decided to ask the different cities and towns to donate toward this work, and in order to make the action of the members legal, it was decided to appoint Hon. J. F. Ford, the chairman of the Board of Trustees, as a representative of the different cities and towns at Des Moines during the legislature and to employ him to look after legislative matters for the members. Mr. Ford, of course, simply acted as trustee for the fund and it was disbursed on order of the committee. The Secretary of the League was appointed Secretary-Treasurer of this special fund.

The total receipts of the Special Legislative Fund, including two hundred and fifty dollars from the League Fund, amounted to \$858.00.

All of this money was expended for legislative matters with the exception of \$25.63 which was turned back into the League treasury.

I file with this report the itemized statement of the receipts and expenditures of the Special Fund, receipt stubs and checks, and ask that this report also be referred to the Auditing committee, for a report to this convention.

All my books and vouchers are in Iowa City and any delegate wishing to examine them, may do so by calling at the Secretary's room.

(For financial report see page 28)

DEMANDS OF THE FUTURE

We must not think, however, that because we have made such progress in the past that the work of the League is accomplished and that we should discontinue our work.

It is one of the unfortunate conditions of American municipal government that we are constantly electing men to office who know nothing or little of municipal affairs. As a usual thing, just about the time a mayor or councilman becomes well versed in municipal affairs and able to give his people efficient service, those same people decide that he has held the office long enough and they proceed to elect others who must spend a year or more before they have even a fair knowledge of municipal questions.

It should be and is the policy of the League to aid and assist the new officials in every possible

way. But by some strange working of the average mind, the man who is elected to office usually is firmly convinced that he, on account of such election, is thereby qualified to solve every problem with which he is confronted and without the help or advice of those who might be able to help him. My observation is that the longer a man is in office, the less he is apt to think he knows about municipal affairs.

Then the work of the League so far as legislation is concerned is never finished. The utility corporations, some of the state officers and many other public and private interests are constantly trying to secure legislation to their own advantage and at the expense of the municipalities. This department of the League work becomes more important every year, and the League should receive the support of every city or town in the state on account of the work before the legislature if for no other reason.

As the old experienced officials, the ones who have protected the municipalities in the past, retire from active service, it is essential for new men to accept these burdens and to be qualified to render the necessary service. The League of Iowa Municipalities must do everything possible to inform these new men and it is an obligation these men owe their state, their city, and themselves to do everything in their power to become qualified to carry on the work of their patriotic and loyal predecessors.

May we all work together in the future as in the past for the glory and well being of the cities and towns of Iowa.

THE MOTOR VEHICLE TAX

During the last few months, I have received a number of complaints from different cities and towns, to the effect that they are not receiving nearly the same amount from the motor vehicle tax that they did a year ago. The municipalities are especially interested in this tax, because they feel that a very large amount of property that should be taxed within the municipalities has been taken over by the state and taxed for the benefit of the state at large. This would not be so bad if the state would collect the tax, but the fact is that the state is not collecting the tax and the municipalities are not receiving even the amount of money to which they are entitled under the law.

Under the law, it is the duty of the Secretary

of State to collect this tax and in order to see what, if any, explanation this state officer had for not collecting the same, I recently wrote him asking why the delinquent automobile taxes were not collected. In reply to my inquiry, the Secretary of State replied as follows:

"I have before me your letter of the 5th inst., inquiring as to the steps being taken by this department to collect the delinquent automobile taxes.

"In reply will state that we have sent out to the county attorneys of the state, lists showing the registered owners appearing on our files, who have registered for the year 1916, but who have failed to register for this year, except that lists have not yet been sent to four counties; but they will be completed as to these counties and forwarded within the next day or two.

"As you may know, there has been no legislation so far passed which will enable this office to send out anyone to collect, and there is not a dollar appropriated to this office for this purpose. The forwarding of the delinquent list to the various counties has been delayed on account of the press of the work which made it a physical impossibility to do so before. Automobile registrations have increased this year at an unprecedented rate, and the Legislature has not provided sufficient clerical help to keep pace with this increase. We sent out the delinquent lists much earlier last year than we could possibly prepare them this year. On the 1916 lists, there were in all, about twelve thousand names, but the county attorneys only reported on from between five and six hundred.

"I think that the great trouble has been, and is, that the state has departed from the one year plate system under the new law enacted two years ago, to the three year plate system of the present time. I opposed the passage of this law two years ago, and have been against it ever since. It is, in my judgment, a pretty dear experience for the state, and should be repealed by the next legislature."

I do not doubt but what the conditions are very much as the Secretary of State explains them but it is certainly a remarkable example of the judgment of the legislature and the efficiency of our state officers when so large an amount of property over which the state has absolute control can escape from all taxation. It is certainly true that city councils sometimes display poor judgment and that municipal officials are sometimes most inefficient, but it should be remembered that municipal officials are not in a class by themselves, but that the representatives of all the people of the state, constituting the state legislature, can also exercise the poorest judgment and the state officials be most inefficient in the discharge of their duties.

The Secretary of State blames the law for the conditions, and without doubt the law is

largely to blame, but if the Secretary of State would only overcome the adverse conditions, and would collect the tax in spite of difficulties, he would demonstrate to the people that he is an official who is indeed worthy of their support. If we cannot elect state officials who will overcome difficulties, the next best thing to do, is to go before the next legislature and have this automobile license law changed back to the annual registration.

PROTECTION OF STREETS AND PAVEMENT

During the past year, I have been interested in trying to devise an ordinance that would protect the streets and pavements of our cities and towns from traction engines, motor trucks, and other vehicles of an unusual type.

Most of the streets and pavements that are now in existence were constructed for the accommodation of the horse drawn vehicle with the maximum load of from three to four tons. With the advent of the automobile and the friction caused by the rapidly turning wheels of a machine going at fifty or sixty miles an hour, it was found that the dirt roads and many types of pavement would not hold up under this constant tearing of the surface. In the last few years, a new type of automobile has been added to our troubles. The five to ten ton truck, that expects to travel over the roads and the pavements that were constructed for the accommodation of vehicles carrying only a small part of such load, are unmeasurably worse than the speeding automobile. The enormously heavy trucks are tearing up the pavement and are damaging public property to such an extent that the municipalities could well afford to pay for all the hauling done by them rather than to allow them to operate over the improved streets.

Last fall, I started an investigation of the laws in other states, relating to trucks, and through the assistance of the Technical Service Bureau at Ames, and the United States Department of Agriculture, I have been able to gather a large amount of valuable data in regard to the proper width of tires for the loads of different weights. I have also outlined an ordinance for the protection of the street and pavement, and submitted it to a number of attorneys, but in order that the ordinance might be made as broad as possible and be of the greatest value to the municipalities of Iowa, I recommend that a special com-

mittee be appointed at this meeting, and that the ordinance, together with all the data in my possession be referred to this committee for a report at a later session, of an ordinance embodying the best parts of all the laws and ordinances I have secured. I believe that such an ordinance will be of the greatest value to every city and town in the state.

THE LEAGUE AND COAL PRICES

Last summer, when it seemed probable that coal would be exempted from the commodities to be controlled by the government, and that the coal consumers would be left to the tender mercies of the Peabody committee, the officers of the League, in connection with the Iowa section of the national Electric Light Association, arranged with Hon. Clifford Thorne for him to go to Washington and make a showing before the proper senate committee that the Peabody committee was not the proper agency for fixing coal prices and to endeavor in all ways possible to have coal included in the commodities to be controlled by the government.

Your officers felt that the municipalities of Iowa were directly interested in this question. Many of the municipalities operate their waterworks and electric light utilities and are large purchasers of coal. Even where these utilities are owned by private companies, it would be necessary, in case the price of coal reached an unreasonable figure, for these utilities to increase their prices to the consumer and the people of the cities and towns would, in the end, be obliged to pay the bill. We felt that if through our efforts a small reduction could be made in the price of coal, that it would be a service to all the people, not only in this state, but to the nation, of which the League of Iowa Municipalities could well be proud. Later, Mr. Thorne appeared also for the Utilities Bureau of Philadelphia and numerous state leagues of municipalities, so that it can well be said that the municipal leagues of the country and especially, the League of Iowa Municipalities, were greatly instrumental in finally getting the coal situation in as satisfactory condition as it is today.

Your secretary attended one conference in Chicago on this question and at that conference, many interesting facts were brought out. For instance, it was shown that Mr. Peabody, the chairman of the committee to which the gov-

ernment originally delegated the recommending of coal prices, is one of the largest coal producers in the state of Illinois. It was stated on the best of authority, that Mr. Peabody admitted that he was making more money out of his coal business than he ever dreamed of making, but that he could not help the situation. It was also stated that Mr. Peabody was one of the large subscribers to the President's campaign fund and was actually connected with the campaign for his election. In this first coal price fixing, the President was, in the vernacular of the street, "handed a package" and by one of his friends at that. It is to the President's everlasting credit, however, that just as soon as he found out the true conditions, he immediately took action and fixed prices on coal, that while more than fair to the producers, were much below the prices recommended by the Peabody committee, and are prices that are reasonably fair to the consumer.

Municipal officials, as the leaders of the majority of the people in their respective municipalities, should now see to it that the local dealers do not ask an exorbitant profit, but that the coal is delivered to the consumer at a reasonable margin of profit.

The war has changed many conditions, and these questions of prices and distribution of the necessities of life, are the questions which in my judgment, should receive the careful and constant efforts of municipal officials during the coming year.

MUNICIPALITIES AND THE WAR

Last winter and spring and even well into the summer months, a great deal was published in the papers, and many of the leading financiers and public men of the country took occasion to make statements to the effect that we should continue our business as usual, and that no activities of peace should be discontinued. Last spring, when war was declared by our country, I published an article in *American Municipalities* in which I advised the municipalities to reduce the amount of improvements that they were to undertake for the present year. Many business men took me to task for this advice and sent me numerous articles in which the plea was made to continue business as usual. In reply to these letters, I answered that in war times it was absolutely impossible to continue business as usual and that municipal officials should carefully

consider their policies in regard to their improvements and expenditures in order to take that action which would best serve the country.

I am one of those who believe that business should not be the principal thing to be considered during the present times. I believe that the business of the American people, and the business of municipal officials, at this time is limited to one thing, and that is, to carry on the war, and to carry it on with every possible means and energy, because the more we give ourselves to the carrying on of the war, the sooner it will be over. The American people have just one business today, and that is, to carry on the war and to bring it to a successful termination. The nation needs every man that can be possibly spared from necessary occupations in its army. With a five billion dollar bond issue soon to be placed, and all indications pointing to the fact that the American people will be obliged to subscribe to not less than fifteen billions additional bonds in the next year, not a single dollar should be expended for anything that is not absolutely necessary or that does not directly help to win war.

If there was ever a time in the history of this country when our people should be relieved from extra expenditures and special assessments, that time is now, when all the people must subscribe for government bonds if the various issues of the future are to be successfully sold. So with labor. With millions of our most active young men taken from their usual avocations, this is no time to carry out special improvements that will demand large numbers of laborers.

DUTY OF MUNICIPAL OFFICIALS

In outlining your activities for the coming year, I believe it would be both a sensible and a patriotic thing to do, to cut out every possible improvement that is not absolutely necessary.

Without doubt, it would be an excellent thing to have many miles of pavement constructed in Iowa during the coming year. But ninety per cent of the contemplated pavement for the coming season, can well be put off until after the war, and this would release just so much money and so many men for the real business of the American people of today, that is, of making war.

If no large improvements are to be undertaken during the period of the war, you might well ask, what will municipal officials do to

improve the conditions of their cities and towns. It has been suggested, and I heartily agree with the suggestion, that now is an excellent time to take an account of the various municipal activities, to take an invoice if you please, and to bring all activities of the municipalities up to the highest point of efficiency.

Instead of adding to your water mains at an almost prohibitive price for pipe, spend your time bringing the waterworks you now have up to the most economical operation possible. There is hardly a municipal waterworks system in the state, but that the people in charge could well afford to spend several months carefully considering all the conditions to see where and how the plant and the service could be improved.

Instead of building new pavement, see that those pavements that you now have are brought into a perfect state of repair. Instead of building new sewers, see that your people connect with the sewers you already have. In other words, do what every good citizen does every so often, take an invoice of all of your municipal enterprises that you now have and see to it that they are being operated in the best possible way and to the best possible advantage of your citizens.

A policy of this kind would free thousands of laborers for work that is needed in connection with the war. It would save thousands and millions of dollars that are needed by our government to pay the necessary expenses of the war. A policy of this kind, would give the municipalities a chance to catch up in a financial way with the extraordinary expenses of the past years, and the municipal official who has a broad enough vision to appreciate that this war for humanity, that we are now engaged in, is the greatest possible thing to which he can give his efforts, will do his people and his country more service than he can in any other way.

In passing, it might be well to recall, that while big business is apt to criticise municipal officials, yet in this present crisis, big business with a few notable exceptions has shown itself the most unpatriotic of all our people. In every case where big business could demand an exorbitant profit, it has done so. Big business has not stood the test. This makes your opportunity for patriotic service all the greater. Show the

voters that they did not make a mistake in choosing their official leaders. Impress on all your people that they should place patriotism and love of country above private gain. You will feel more pride in the work you do for our country than you possibly can in work of any other kind. Let us dedicate ourselves unselfishly to the cause of our country and humanity and when this contest is over we can ever thereafter feel that we, in a small way, were instrumental in saving the world for democracy and for an equal chance for every man whether born in some other land or under our own stars and stripes.

FREEDOM FOR MUSICIAN

Woe be it unto any young Beethoven, Bach, or Caruso living in the city of Venice, in the state of California, who should at any time fail to close the window or the screen door, for Venice has an ordinance, to wit:

"It shall be unlawful for any person, firm or coporation, in any public or uninclosed place, in the city of Venice, to play any musical instrument, or to sing, or to make any loud or unusual noise, or to call out goods, wares or merchandise, or the attractive features of any amusement, device or place of recreation or refreshment, without first securing from the board of trustees a permit so to do. Said permit shall be granted only upon a written application, which application must specify the place for which the permit is to be granted and the kind of amusement or noise desired to be made."

One Wisner was charged with playing in an uninclosed place, without first securing a permit from the city, a musical instrument, namely, one snare drum. Judge James, for the District Court of Appeal, Second District of California, in *Ex parte Wisner*, 163 Pacific Reporter, 868, in declaring the ordinance discriminatory and unreasonable, held that one might be in a cheesecloth inclosure, and still be within the law, whereas one might be inclosed within wooden walls on all sides except the top, and yet he would be violating the ordinance. Imagine the consequences if one should forget himself and whistle without first obtaining a permit: An officer would be in a position where he could place the whistler in an inclosure surrounded by iron bars.

Annual Financial Statement

Financial Report of Secretary-Treasurer, League of Iowa Municipalities

Showing Receipts for the Year beginning Sep. 1, 1916, and ending Aug. 31, 1917, as reported by F. G. Pierce, Secretary-Treasurer of the League.

RECEIPTS FROM DUES

Ackley.....\$10 00	Adel.....\$10 00	Earlville..... 5 00	Early..... 10 00
Akron..... 10 00	Albert City..... 10 00	Eddyville..... 10 00	Edgewood..... 10 00
Albia..... 30 00	Alden..... 10 00	Elberon..... 10 00	Eldridge..... 10 00
Algona..... 20 00	Alta..... 10 00	Elgin..... 10 00	Elkader..... 10 00
Alta Vista..... 10 00	Alton..... 10 00	Elk Horn..... 10 00	Epworth..... 10 00
Altoona..... 10 00	Ames..... 30 00	Essex..... 10 00	Estherville..... 20 00
Arlington..... 10 00	Armstrong..... 10 00	Everly..... 10 00	Exline..... 10 00
Ashton..... 10 00	Aurelia..... 10 00	Fairfield..... 30 00	Farley..... 10 00
Avoca..... 10 00	Badger..... 10 00	Farmersburg..... 10 00	Farmington..... 10 00
Bagley..... 10 00	Baldwin..... 10 00	Fayette..... 10 00	Ferguson..... 10 00
Bancroft..... 10 00	Baxter..... 10 00	Fontanelle..... 10 00	Fort Dodge..... 40 00
Bedford..... 10 00	Belle Plaine..... 20 00	Fredericksburg..... 10 00	Galt..... 10 00
Bellevue..... 10 00	Belmond..... 10 00	Galva..... 10 00	Garber..... 10 00
Bennett..... 10 00	Bernard..... 10 00	Garnaville..... 10 00	Garner..... 10 00
Bettendorf..... 10 00	Blanchard..... 10 00	Garwin..... 10 00	George..... 10 00
Blairstown..... 10 00	Bloomfield..... 20 00	Gladbrook..... 10 00	Goldfield..... 10 00
Blue Grass..... 5 00	Bonaparte..... 10 00	Goodell..... 10 00	Goose Lake..... 10 00
Boone..... 40 00	Boyden..... 10 00	Gowrie..... 10 00	Grand Junction..... 10 00
Brighton..... 10 00	Britt..... 10 00	Grand Mound..... 10 00	Gravity..... 10 00
Buckeye..... 10 00	Buffalo..... 10 00	Greenfield..... 10 00	Grundy Center..... 10 00
Burlington..... 40 00	Bussey..... 10 00	Guthrie Center..... 10 00	Guttenberg..... 10 00
Calmar..... 10 00	Calumet..... 10 00	Hanlontown..... 10 00	Hamburg..... 10 00
Cambridge..... 10 00	Carlisle..... 10 00	Hampton..... 20 00	Harlon..... 20 00
Carroll..... 20 00	Castana..... 10 00	Harris..... 10 00	Hartley..... 10 00
Cedar Falls..... 30 00	Center Junction..... 10 00	Hawarden..... 20 00	Holstein..... 10 00
Charles City..... 30 00	Charter Oak..... 10 00	Hornick..... 10 00	Hospers..... 10 00
Chatsworth..... 10 00	Cherokee..... 20 00	Hubbard..... 10 00	Hudson..... 10 00
Churdan..... 10 00	Clearfield..... 10 00	Hull..... 10 00	Humboldt..... 20 00
Clarence..... 10 00	Clarinda..... 20 00	Huxley..... 10 00	Imogene..... 10 00
Clermont..... 10 00	Clinton..... 40 00	Iowa City..... 40 00	Iowa Falls..... 20 00
Coggon..... 10 00	Coin..... 10 00	Independence..... 20 00	Jamaica..... 10 00
Colesburg..... 10 00	Colfax..... 20 00	Janesville..... 10 00	Kanawha..... 10 00
Collins..... 10 00	Conrad..... 10 00	Kenwood Park..... 10 00	Keokuk..... 40 00
Coon Rapids..... 10 00	Correctionville..... 10 00	Keota..... 10 00	Keystone..... 10 00
Corwith..... 10 00	Corydon..... 10 00	Kimballton..... 10 00	Kingsley..... 10 00
Council Bluffs..... 50 00	Cresco..... 20 00	Kirkman..... 10 00	Kiron..... 20 00
Creston..... 30 00	Danbury..... 10 00	Klemme..... 10 00	Knierim..... 10 00
Davenport..... 50 00	Davis City..... 10 00	Lacona..... 10 00	Ladora..... 10 00
Dayton..... 10 00	Decorah..... 20 00	Lake Mills..... 10 00	Lake View..... 10 00
Delta..... 10 00	DeWitt..... 10 00	Lamoni..... 10 00	Lamont..... 10 00
Dike..... 10 00	Dixon..... 10 00	LaPorte City..... 10 00	Larchwood..... 10 00
Dolliver..... 10 00	Donnellson..... 10 00	Lawton..... 10 00	LeClaire..... 10 00
Dow City..... 10 00	Donbuque..... 50 00	LeHigh..... 10 00	LeMars..... 30 00
Dumont..... 10 00	Dunkerton..... 10 00	Leon..... 10 00	LeRoy..... 10 00
Dunlap..... 10 00	Durant..... 10 00	Linn Grove..... 5 00	Liscomb..... 10 00
Dyersville..... 10 00	Eagle Grove..... 20 00	Lohrville..... 10 00	Lone Tree..... 10 00
Earlham..... 10 00	Earling..... 10 00	Lorimor..... 10 00	Lost Nation..... 10 00
		Lovilia..... 10 00	Lowden..... 10 00
		Luana..... 10 00	Luther..... 10 00
		Lytton..... 10 00	McCallsburg..... 10 00
		McGregor..... 10 00	McIntire..... 10 00
		Madrid..... 10 00	Magnolia..... 10 00
		Manning..... 10 00	Manson..... 10 00

Mapleton.....	10 00	Maquoketa.....	20 00	Storm Lake.....	20 00	Storm City.....	10 00
Marathon.....	10 00	Marble Rock.....	10 00	Stuart.....	10 00	Sumner.....	10 00
Marcus.....	10 00	Marengo.....	20 00	Sutherland.....	10 00	Swea City.....	10 00
Marion.....	20 00	Marshalltown.....	40 00	Tabor.....	10 00	Tama.....	20 00
Mason City.....	40 00	Maurice.....	10 00	Thompson.....	10 00	Thor.....	10 00
Maynard.....	10 00	Maxwell.....	10 00	Tipton.....	20 00	Toledo.....	10 00
Mechanicsville.....	10 00	Mediapolis.....	10 00	Traer.....	10 00	Treynor.....	10 00
Melbourne.....	10 00	Melvin.....	10 00	Tripoli.....	10 00	Underwood.....	10 00
Meriden.....	10 00	Meservey.....	10 00	Union.....	10 00	Urbana.....	10 00
Milford.....	10 00	Minden.....	10 00	Vail.....	5 00	Van Horne.....	10 00
Missouri Valley.....	20 00	Monona.....	10 00	Varina.....	10 00	Villisca.....	20 00
Monticello.....	20 00	Montross.....	10 00	Wadena.....	10 00	Walcott.....	10 00
Morning Sun.....	10 00	Morrison.....	10 00	Walker.....	10 00	Wall Lake.....	10 00
Moulton.....	10 00	Mount Pleasant.....	20 00	Walnut.....	10 00	Wapello.....	10 00
Mount Union.....	10 00	Mount Vernon.....	10 00	Washington.....	20 00	Waterloo.....	50 00
Murray.....	10 00	Nashua.....	10 00	Waukon.....	20 00	Waverly.....	20 00
Neola.....	10 00	Nevada.....	20 00	Wellman.....	10 00	Wellsburg.....	10 00
New Albin.....	10 00	New Hampton.....	20 00	Wesley.....	10 00	West Bend.....	10 00
New Liberty.....	10 00	New London.....	10 00	West Branch.....	10 00	Westgate.....	10 00
New Sharon.....	10 00	Newton.....	20 00	West Liberty.....	10 00	West Point.....	10 00
New Vienna.....	10 00	Nora Springs.....	10 00	What Cheer.....	10 00	Wheatland.....	10 00
Northboro.....	10 00	North English.....	10 00	Whiting.....	10 00	Williams.....	10 00
North McGregor.....	10 00	Northwood.....	10 00	Winfield.....	10 00	Winterset.....	20 00
Norwalk.....	10 00	Norway.....	10 00	Winthrop.....	10 00	Woodward.....	5 00
Numa.....	10 00	Oakville.....	10 00	Woolstock.....	7 50	Worthington.....	10 00
Ocheyedan.....	10 00	Odebolt.....	10 00			Green Island.....	10 00
Oelwein.....	30 00	Ogden.....	10 00				
Olds.....	10 00	Olin.....	10 00			Total from Dues.....	\$4832 50
Onawa.....	20 00	Onslow.....	10 00				
Orange City.....	10 00	Orient.....	10 00			DISBURSEMENTS	
Oskaloosa.....	40 00	Ossian.....	10 00	Sept. 6, F. G. Pierce, salary July and Aug...	\$ 200 00		
Ottumwa.....	40 00	Oxford.....	10 00	Sept. 9, Carl H. Lambach, cir. letters con....	7 45		
Oxford Junction.....	10 00	Pacific Junction.....	10 00	Sept. 15, A. G. Johnson, P. M., postage.....	19 00		
Palo.....	10 00	Panama.....	10 00	Sept. 19, J. R. Hanna, expense convention....	12 00		
Paullina.....	10 00	Pella.....	20 00	Sept. 20, Geo. Gallarno, expense con. aud....	14 79		
Perry.....	30 00	Pleasantville.....	10 00	Sept. 20, Ora Williams, convention.....	13 00		
Plymouth.....	10 00	Pocahontas.....	10 00	Sept. 23, F. G. Pierce, telephone meeting....	27 21		
Pomeroy.....	10 00	Postville.....	10 00	Sept. 23, Municipal Pub. Co. July, Aug. & Sept.	522 55		
Prairie City.....	10 00	Prescott.....	10 00	Oct. 2, F. G. Pierce, salary September.....	100 00		
Protivin.....	10 00	Randolph.....	10 00	Oct. 2, Municipal Pub. Co., October.....	174 55		
Readlyn.....	10 00	Red Oak.....	30 00	Oct. 6, F. G. Pierce, expense Oskaloosa meet.	6 82		
Reinbeck.....	10 00	Rembrandt.....	10 00	Oct. 12, F. G. Pierce, expense Des Moines meet.	37 25		
Remsen.....	10 00	Rhodes (Edenville).....	10 00	Oct. 13, Frank Hardie, reporting Dubuque con.	65 00		
Ricketts.....	10 00	Ringsted.....	10 00	Oct. 19, Marshall Ptg. Co., printing.....	11 25		
Riverton.....	10 00	Rock Rapids.....	20 00	Nov. 1, F. G. Pierce, salary October.....	100 00		
Rockwell City.....	10 00	Rock Valley.....	10 00	Nov. 1, Municipal Pub. Co., November.....	174 05		
Roland.....	10 00	Rolfe.....	10 00	Nov. 9, A. G. Johnson, P. M., postage.....	42 40		
Rome.....	10 00	Russell.....	10 00	Nov. 11, Stipp, Perry & Starzinger, bal. fees suit.....	350 00		
Ruthven.....	10 00	Ryan.....	10 00	Nov. 21, T. J. Reeves, meet. with engr. dept..	17 03		
St. Ansgar.....	10 00	Sac City.....	20 00	Nov. 22, J. T. Ford, expense Ames meeting..	6 16		
Sanborn.....	10 00	Schaller.....	10 00	Nov. 25, F. G. Pierce, expense Ames meeting	4 52		
Schleswig.....	10 00	Scranton.....	10 00	Nov. 28, F. G. Pierce, expense Dubuque meet.	65 82		
Sheffield.....	10 00	Shelby.....	10 00	Dec. 1, F. G. Pierce, salary November.....	100 00		
Sheldon.....	20 00	Shell Rock.....	10 00	Dec. 1, Municipal Pub. Co., December.....	174 05		
Shenandoah.....	30 00	Silver City.....	10 00	Dec. 22, C. A. Wendstrand, expense meeting leg. com.....	10 85		
Sioux Center.....	10 00	Sioux City.....	50 00	Dec. 22, Ben P. Poor, expense meet. leg. com.	12 18		
S. Fort Des Moines..	10 00	Spencer.....	20 00	Dec. 22, J. F. Ford, expense meeting leg. com.	8 70		
Spillville.....	10 00	Spirit Lake.....	10 00	Dec. 22, John Berwald, expense meet. leg. com.	13 65		
Stanhope.....	10 00	State Center.....	10 00	Dec. 26, H. B. Miller, printing.....	45 20		
Stanton.....	10 00	Stockton.....	10 00				



Courier of Soldier and Civilian

Our troops are now on the firing line in France. While at home every instrumentality of our government and private industry is being urged at top speed to insure victory. The telephone is in universal demand as courier, bringing to the front men and the materials of war.

From the farms the telephone courier brings foodstuffs; from the mines the telephone courier calls forth metals; from the factories this courier gathers manufactured products. The telephone courier leads troop and supply trains to the front; summons fighting flotillas and transports; and,

in fact, leads practically every contributing unit of supply to the firing line.

At such a time, when the government is straining at its task and every industry is loyally contributing its energy, this national courier is constantly being used to call up the reserves. It is at the base of every contributing activity.

The right of way must be given to the military for the direction of troops and to the government for the marshaling of endless supplies. To do this, and also make the telephone serve all other needs, both patriotic and private, all must economize.



AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy

One System

Universal Service

Dec. 30, F. G. Pierce, expense Des Moines, Creston and Shenandoah.....	27 34
Jan. 6, F. G. Pierce, salary December.....	100 00
Jan. 6, Municipal Pub. Co., January.....	195 75
Jan. 10, H. F. Johnson, expense meet. leg. com.....	4 92
Jan. 10, E. P. Malmberg, expense meet. leg. com.....	5 40
Jan. 10, W. R. Law, expense meet. leg. com.....	10 39
Jan. 12, W. O. Lucas, expense meet. leg. com.....	3 65
Jan. 12, Marshall Ptg. Co., notices annual mtg.....	13 75
Jan. 24, G. E. Ward, expense leg. com.....	14 76
Feb. 2, A. G. Johnson, P. M., postage.....	42 40
Feb. 5, F. G. Pierce, salary January.....	100 00
Feb. 5, Municipal Pub. Co., February.....	195 75
Mch. 5, Municipal Pub. Co., March.....	163 90
Mch. 5, F. G. Pierce, salary February.....	100 00
Mch. 27, Special legislative fund.....	100 00
Apr. 6, Special legislative fund.....	100 00
Apr. 6, F. G. Pierce, salary March.....	100 00
Apr. 6, Municipal Pub. Co., April.....	163 90
Apr. 20, A. G. Johnson, P. M., postage.....	10 00
Apr. 24, Special legislative fund.....	50 00
Apr. 30, A. G. Johnson, P. M., postage.....	34 32
May 1, F. G. Pierce, salary April.....	100 00
May 1, Municipal Pub. Co., May.....	163 90
May 17, Marshall Ptg. Co., printing.....	42 30
May 18, A. G. Johnson, P. M., postage.....	43 08
May 26, A. G. Johnson, P. M., postage.....	30 30
June 7, F. G. Pierce, salary May.....	100 00
June 1, Municipal Pub. Co., June.....	163 90
July 3, F. G. Pierce, salary June.....	100 00
July 3, Municipal Pub. Co., July.....	168 10
July 18, Marshall Ptg. Co., printing.....	23 00
Aug. 1, F. G. Pierce, salary July.....	100 00
Aug. 2, A. G. Johnson, P. M., postage.....	43 08
Aug. 25, F. G. Pierce, telephone & telegraph.....	13 92
Aug. 25, F. G. Pierce, expense at Iowa City and Chicago.....	33 42
Aug. 28, H. B. Miller, printing.....	47 66
Aug. 28, A. G. Johnson, P. M., postage.....	28 60

Total Disbursements.....\$5072 96

RECAPITULATION

Cash on hand beginning of year.....	\$ 212 66
Receipts for dues from cities and towns.....	4832 50
Interest on Deposits.....	25 00
Special legislative fund.....	25 63

Total.....\$5095 79

Total Expenditures.....5072 96

Cash on hand at close of year.....\$ 22 83

SPECIAL LEGISLATIVE FUND

RECEIPTS

Garner.....\$ 5 00	George.....5 00
Ackley.....5 00	Rock Rapids.....5 00
Bayard.....5 00	Rake.....5 00
Worthington.....5 00	Mapleton.....5 00
Schleswig.....5 00	Wall Lake.....5 00
Collins.....5 00	Maurice.....5 00
Spencer.....10 00	Pella.....10 00

Manson.....5 00	Alden.....5 00
Reinbeck.....5 00	Ottawa.....15 00
Cherokee.....10 00	Oelwein.....10 00
Sutherland.....5 00	Burlington.....15 00
Mt. Pleasant.....10 00	Colfax.....10 00
LeMars.....10 00	Northwood.....5 00
Mason City.....15 00	Dyersville.....5 00
Orange City.....5 00	Stanton.....5 00
Hawarden.....10 00	Durant.....5 00
Maquoketa.....10 00	Cedar Falls.....10 00
Hull.....5 00	Newell.....5 00
Lamont.....5 00	Remsen.....5 00
West Liberty.....5 00	Villisca.....10 00
Clarinda.....10 00	Keokuk.....15 00
Newton.....10 00	Iowa City.....15 00
Bonaparte.....5 00	Oxford.....5 00
Buffalo.....5 00	Waterloo.....20 00
Aurelia.....5 00	Sioux Center.....5 00
Sanborn.....5 00	Shenandoah.....10 00
Brighton.....5 00	Davenport.....20 00
Goldfield.....5 00	Marcus.....5 00
Dubuque.....20 00	State Center.....5 00
Alton.....5 00	Fairfield.....10 00
Bettendorf.....5 00	Epworth.....5 00
Baxter.....5 00	Akron.....5 00
Leon.....10 00	Eagle Grove.....10 00
Corydon.....5 00	Bellevue.....5 00
Waverly.....10 00	Grundy Center.....5 00
Gladbrook.....5 00	Washington.....10 00
Winterset.....5 00	Exline.....5 00
Calmar.....5 00	Ryan.....5 00
Wheatland.....3 00	Toledo.....5 00
Council Bluffs.....20 00	Manning.....5 00
Donation.....5 00	
Total from members.....	\$608 00
Mch. 27 '17 League.....	100 00
Apr. 6 '17 League.....	100 00
Apr. 24 '17 League.....	50 00

Total of fund.....\$858 00

DISBURSEMENTS 1917

Jan. 20 F. G. Pierce.....	\$16 26
Jan. 20 Ben P. Poor.....	13 68
Jan. 20 F. E. Blackstone.....	14 27
Jan. 22 W. R. Law.....	15 04
Jan. 22 H. H. McCleery.....	12 35
Jan. 23 C. A. Wenstrand.....	11 50
Jan. 23 Adrian Cross.....	3 40
Jan. 23 Ed. Farrell.....	14 60
Jan. 23 J. F. Cole.....	13 32
Jan. 23 P. H. Cragan.....	3 00
Jan. 24 T. A. Potter.....	9 36
Jan. 24 J. F. Ford.....	10 50
Jan. 24 Geo. E. Ward.....	16 26
Jan. 27 James Saul.....	13 40
Jan. 27 F. G. Pierce.....	19 86
Jan. 27 A. G. Johnson.....	25 12
Feb. 7 F. G. Pierce.....	21 00
Feb. 12 J. F. Ford.....	17 50
Feb. 15 B. P. Poor.....	15 18

(Continued on page 28)

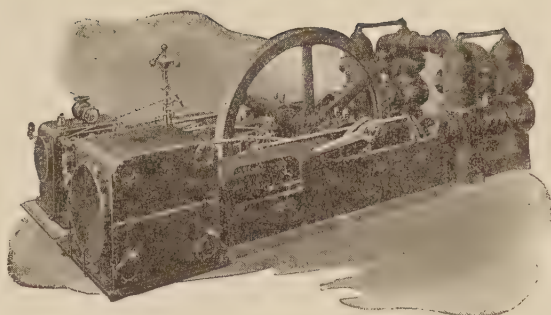
Many manufacturers are going into
the manufacturing of war munitions
but we are so busy making

Keystone and Eureka Water Meters

that we have not had the time, or
space, to make shells. The demand
for Keystone and Eureka Meters
taxes our capacity

Pittsburgh Meter Company

General Offices and Works
East Pittsburgh, Pa.



MARSHALLTOWN, IOWA

Hans Madsen, Superintendent, referring to a
4,000,000 gallon pump installed by this Com-
pany, says:

"We are highly pleased indeed. The pump per-
forms far beyond our expectations and the guarantee,
and the engine works perfectly."

Write for Bulletin 1637

Allis-Chalmers Manufacturing Co.

Milwaukee, Wisconsin

CONCRETE FOR PERMANENCE

Highway Facts and Figures

The American Highway Association has just published results of experiments made for the California State automobile Association by the State Highway Engineer and a professor in the State University. These may be summed up as follows:

On an unsurfaced concrete road the same horsepower (beast or auto) will pull *nine or ten times* as heavy a load as on loose gravel—*seven or eight times* as much as on a muddy dirt road—*more than three times* as much as on a good dirt road—*nearly three times* as much as on bituminous macadam—and *twice* as much as on bituminous concrete or waterbound macadam.

The concrete highway is the most efficient.

Atlas Road Building Service

Our Highway Department will gladly assist in preparing plans, proposals and cost estimates and will arrange for inspection if desirable. Send for our free book "Concrete Highway Construction."

The Atlas Portland Cement Company

Member of the Portland Cement Association

New York Chicago Philadelphia St. Louis Boston Minneapolis Des Moines Dayton Savannah

PORTLAND

ATLAS



CEMENT

"The Standard by which all other makes are measured"

When writing advertisers please mention American Municipalities

BLOODHOUND EVIDENCE

There is an undeniable fascination, not un-mixed with a form of superstitious dread, coupled with the use of the bloodhound in capturing fugitives, and in singling out from among his neighbors the man whose hand is still hot from the stain of recent crime. The subtle instinct which allows the animal, apparently with unerring decision, to choose, time and again, unfaltering, from among a score of alternatives, the clue which continues to his goal, must engender awe, even among the most intelligent, and respect and fear to others.

It is, however, this fact, that the hound must usually contend against almost insuperable difficulties, that renders the verdict of his instinct and intelligence of doubtful competency in a court of justice. A bloodhound of the true breed and highly trained, brought to the scene of a crime still new and unmolested, can, if given a truthful starting point and without other unfavorable conditions, track the perpetrator down with certitude. But ideal conditions are seldom, if ever, present. Hours generally pass before the hounds reach the scene, with each passing minute rendering the trail more faint, while intervening circumstances along the way accumulate rapidly into a maze of complexity which must prove baffling to the supersensitiveness of the dog.

These circumstances connected with the employment of bloodhounds are recognized in *Ruse v. State*, 115 Northeastern Reporter, 778, in the Indiana Supreme Court, where Justice Spencer, in holding such evidence to be inadmissible, quotes the following from the dissenting opinion of Judge Cuffey in *Pedigo v. Commonwealth*, 44 S. W. 146, heard in the Kentucky Supreme Court:

"If the dog took up the trail of a known fugitive, and found him, the object would be accomplished, and there could be no mistake as to whether he was the party sought. * * * But it is now proposed to use the hound, not to capture a fugitive, but to ascertain or furnish evidence to convict some citizen of crime. It seems to me that the life nor liberty of a citizen should be jeopardized by the mere fact that some person testified that the hound was well trained to track human beings, and that he had trailed the accused from the scene of the crime to his habitation. There is too much danger of an

innocent person being convicted, or at least arrested and permanently disgraced, by the admission of such testimony."

CANTONMENT ROAD BUILDING IN RECORD TIME

A record breaking piece of road building was completed last week in connection with the army cantonment near Louisville, Kentucky. This is one of the few military establishments that have built permanent roads. In 63 working days the contractor completed 63,360 square yards of Trinidad asphaltic concrete highway laid on a concrete base, or about six miles of road 18 feet wide. A mile of road was over a four-foot fill, and immediately upon its completion a traffic count showed that 4000 vehicles passed over it within the first hour. Most of these vehicles were motor trucks and wagons carrying loads of from one to five tons. The record made by the Bickel Asphalt Paving Company, the contractors, is all the more remarkable in view of the fact that it was necessary to haul and crush all the stone used on the work.

CITY OF SHELDON

Paving 8½ miles, 4½ miles, 1916-1917
 Sewer 10 miles, 2½ miles, 1916-1917
 Water Mains 12 miles, 3 miles, 1916-1917
 Water Plugs 76—Every water user on a meter
 School House \$200,000
 Park 10.6 acres
 Sewage Disposal, adding \$12,000 to the plant
 Gas Plant, Rate 1.40, Private two flour mills
 Bottling Works
 Three Banks, Deposit \$3,000,000.00
 One Loan & Trust Company
 Five Grain Elevators
 Three Lumber Yards
 Three Railroads
 Public Library
 Electric Light Plant, Private rates 14 to 4 cents
 Five Garages
 Waterworks, municipal and motor driven pumps
 Home of the Sheldon Fair
 Two Live Newspapers, weekly
 Motor Fire Truck (Combination of chemical and firetruck)
 Shedervoller Motor Driven Flusher
 Commercial Club, 200 boosters
 J. A. DeWitt, 1st ward
 Sheldon—The Home Town

Classified Advertisements

Officers of members of the League of Iowa Municipalities may run one advertisement each month free of cost.

WANTED—Second hand 10,000 to 16,000 gallon storage tank for gasoline. Lock box 235 Sheldon, Ia.

FOR SALE—A number of good gas meters. Will be sold at a bargain. W. D. Hanna, Clerk, Winfield, Iowa. 57

FOR SALE—Having recently made arrangements with a power company to furnish electricity the town of Coggon has the following for sale. 1-28HP Bates & Edmonds double cylinder gasoline engine. 1-125 Volt 120 amp. continuous load D. C. generator, 1200 R.M.P. 1-55 volt 25 amp. continuous load D C generator, 1400 R.M.P. 1 fully equipped switch board. Everything in good condition. For information write F. W. Lindahl Town Clerk. 106

FOR SALE—The city of Shenandoah, Ia., has for sale. 1 Seagraves Hose Wagon in extra good condition fully equipped. 1 Hale Hose Wagon (new) built especially for Tournament purposes. 2 Sets of Hale harness and hangers nearly new. 1 Hand drawn ladder truck with ladders. 2 Hand drawn hose carts in excellent condition. Also will sell one span of fire horses, (thoroughbreds) young and well broken for fire service. Address inquiries to C. M. Conway, city clerk. 106

FOR SALE—Having changed our light system from D C to A C, the town of Whiting offers for sale, one 50 h. p. Alamo distillate oil engine. This engine is running a 30 k. w. generator every night and is open to inspection at any time. Price \$250. If interested write L. A. Patterson, city clerk. 106

FOR SALE—Having recently made arrangements with a neighboring town to furnish electric current for lighting and power. The town of Shelby offers for sale a Gas Lighting Plant, complete in good running order will sell at a bargain, as the town has no use for it, address all communications to town clerk of Shelby, Iowa.

FOR SALE—The incorporated town of Milford has for sale 1 Davis carbide feed acetylene gas plant in perfect condition. Model B generator 75 pound capacity. 23 burners with fixturers. 150 feet ½ inch pipe. Will sell at a sacrifice. For information write J. E. Shelledy Clerk, Milford, Iowa.

FOR SALE—Having recently installed a water works system the town of Lowden offers for sale a chemical engine in good condition. For particulars write Richard Parr, Town Clerk, Lowden, Iowa. 116

PAINTING—If you have water tower or anything in similar line you want painted, write W. O. Potter, Fredricksburg, Iowa.

FOR SALE—One steel tower and wooden tank suitable for water works in small town. Will sell cheap. Write C. C. Clifton, Clerk, Thompson, Iowa. 617

FOR SALE—Bates & Edmonds 35 H. P. upright engine, gasoline or kerosene, 2 cylinder, all complete, in good shape. Have installed transmission line current and have no use for engine. Address Percy Lyon, Clerk, Dike, Iowa. 617

FOR SALE—85 pieces, 12 feet lengths, 16 inch cast iron pipe; 22 pieces about 21 feet length, 4 inch, extra heavy galvanized with couplings; 8 pieces about 20 feet lengths, 4 inch extra heavy galvanized without couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized with couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized without couplings; 150 feet, 6 inch black pipe; one 20 inch valve, hub end; one 16 inch valve, hub end; one 20 inch sleeve; one 20 inch x 20 inch x 16 inch T; eight 4 inch x 4 inch x 3 inch T, hub; twenty 4 inch valves threaded; ten 3 inch valves threaded; ten 4 inch crosses; ten 4 inch Ts; six 3 inch dresser couplings; thirty 4 inch dresser couplings; ten 4 inch saddles and double straps; ten 4 inch to 3 inch galvanized extra heavy reducers; and eight Cook strainers No. 20. The above is all new and will be sold at a bargain. John I. Bell, commissioner, Marshalltown, Iowa. 917

FOR SALE—One Olson Standard Paving Brick Rattler, nearly new, Price \$75.00. This rattler has been used for about a mile of paving and is in good shape. If interested write P. H. Jones, Clerk, Manning, Iowa.

FOR SALE—The city of Colfax, Iowa, offers the following: Two National steam pumps capacity 500 gallon per minute equipped with Mason Regulators. Two boilers tested to carry 85 pound pressure. One Cameron pump 5 H. P. One National pump 5 H. P. This equipment is in good condition. Will sell all or part. If interested write for further particulars or call and inspect.—H. F. Cassidy, City Clerk.

FOR SALE—Dean Steam Duplex Fire Pump 14 inch steam cylinder, 8½ inch water cylinders, in good condition, price \$400.00. E. C. Smith, Clerk, Town of Bonaparte.

FOR SALE—18 horse power Watrous fire engine, good as new, complete with 30 foot 4 inch suction hose, same being replaced by high pressure water system. Write or wire at once, for full particulars. Russell E. Whipple, chief, fire department. Lehigh, Iowa.

FOR SALE—The city of Fairfield, Iowa has to offer for sale an 8x8, single stage, Deleva Centrifugal pump and 25 H. P. motor in connection, both in practically new condition. The speed of pump is 1800 revolutions per minute. Address for particulars, City Clerk, Box 2 Fairfield, Iowa.

FOR SALE—Having completed arrangements with a neighboring city to furnish our electric current we offer the following at a bargain. One 25 horse power special electric Fairbanks Morse Engine. One 20 K. W. Peerless Generator. 60 Amp. hour battery and switch board instruments. Everything in good condition. Address Town Clerk, Hudson, Iowa

FOR SALE—Two 2-horse double 50-gallon tanks and one either 2-horse or hand drawn 100 gallon chemical fire engine. Champion make, and in good condition. Inquire Chief Kellogg, fire station No. 1 Sioux City.

Annual Financial Statement

(Continued from page 22)

Feb. 15	W. R. Law	15 24
Feb. 15	F. G. Pierce	12 72
Feb. 16	J. D. Glassgow	14 64
Feb. 26	F. G. Pierce	16 36
Feb. 26	H. B. Willenborg	12 29
Feb. 26	Ben. P. Poor	16 93
Mch. 1	J. F. Ford	10 50
Mch. 1	W. O. Lucas	4 25
Mch. 1	J. D. Glasgow	30 23
Mch. 2	G. E. Ward	21 76
Mch. 2	J. F. Cole	17 32
Mch. 10	J. D. Glasgow	4 54
Mch. 12	F. G. Pierce	24 36
Mch. 14	W. R. Law	16 69
Mch. 14	Marshalltown Duplicating Co.	12 50
Mch. 19	Postmaster	12 12
Mch. 19	F. G. Pierce	14 36
Mch. 20	H. F. Johnson	7 92
Mch. 20	W. R. Law	13 50
Mch. 23	F. G. Pierce	13 36
Mch. 27	W. R. Law	16 09
Mch. 27	F. G. Pierce	61 00
Apr. 2	F. G. Pierce	18 36
Apr. 2	W. R. Law	12 34
Apr. 4	F. G. Pierce	20 00
Apr. 5	F. G. Pierce	15 00
Apr. 9	H. F. Wood	23 25
Apr. 10	F. G. Pierce	22 38
Apr. 16	W. R. Law	14 39
Apr. 24	F. G. Pierce	15 36
Apr. 24	J. G. Glasgow	13 96
June 7	W. R. Law	10 84
July 21	League of Iowa Municipalities	25 63

\$858 00

RECAPITULATION

Receipts	\$858 00
Disbursements	858 00

On hand..... 000 00

The last name on the blotter was that of an old offender. It was his fifth appearance before the police judge that month.

"I'll give you twenty days or twenty-five dollars; you may take your choice", said the magistrate, scowling down on the oldtimer.

Eyes yet bleared from the night before, voice still husky, but wit keen, the prisoner replied:

"Much 'bliged, y'honor—if's all shame t'you, I'll take the cash."

VILLAGE OF GILBERT, MINNESOTA, ROAD IMPROVEMENT

At meeting of the village trustees, Sept. 5, contract was awarded the General Contracting Company of Minneapolis for Warrenite surfacing the old macadam on several streets of the village, aggregating 15,000 square yards.

"Mister", whined the faker, "do you want to buy a good fountain pen?"

"Why should you think I needed a fountain pen?" asked the man in gold-rimmed glasses.

"Because you look so literary. Jes' like yer had written one of der six best-sellin' books of der year."

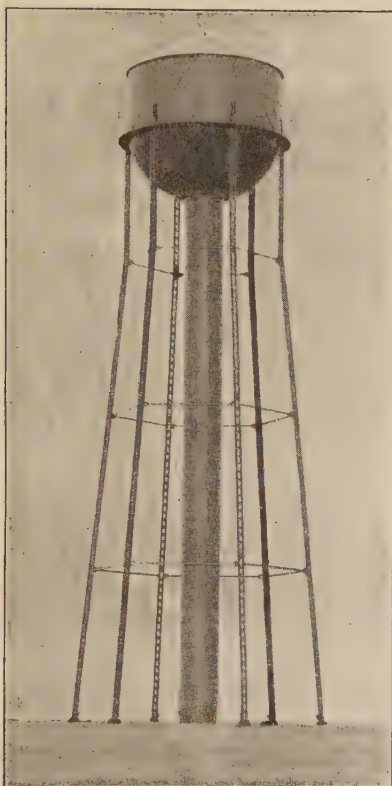
"You don't say. How much is the pen?"

The Pacifist was making a speech when a policeman grabbed him off the soap box and led him to jail. "Whats the charge—disturbing the peace?"

"Naw! Disturbing the war."



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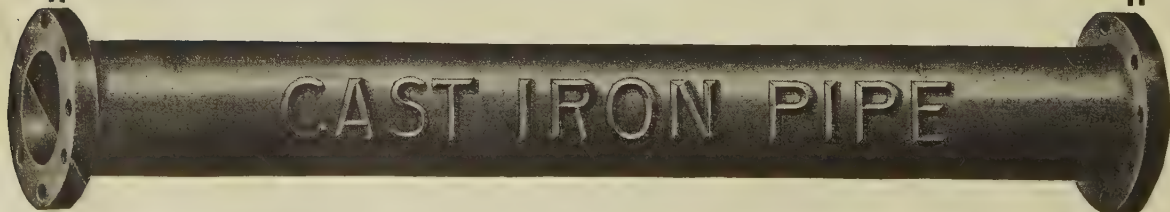
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American Municipalities

November, 1917

Vol. 34, No. 2

Entered as second class matter December 1, 1911 at the Postoffice at
Marshalltown, Iowa, under the Act of March 3, 1879.

Published by
Municipal Publishing Company
Marshalltown, Iowa

Frank G. Pierce, Editor

Subscription Price, - - - \$1.00 per year
Advertising rates made known on application

TO MUNICIPAL OFFICIALS

Municipal officials receiving American Municipalities need have no fear of incurring financial obligations. If you are not a subscriber, either the municipality you represent is a member of one of the Leagues of Municipalities and you are entitled to a copy free, or the copy you receive is a sample copy.

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THE HAM'S RELAPSE

A colored man entered an Ohio general store and complained to the merchant that a ham he had purchased had proved not to be good.

"The ham is all right, Joe," insisted the merchant.

"No, it ain't boss," insisted the other. "Dat ham's sure bad."

"How can that be," continued the proprietor, "when it was cured only last week?"

"Maybe it's done had a relapse."

COMMENT

A large part of this issue is taken up by the reports of the committees on state legislation and judicial decisions.

Every Iowa official should carefully read these reports, because they deal with subjects in which every official is interested.

It will be time well spent if you read the report on judicial decisions not once, but several times, because this report will give you a good idea of the law on a great many municipal questions.

You should file this issue for future reference as questions will no doubt come up during the year that are answered in this report.

A great many of the cities and towns make use of the information bureau of the League, but every member should receive the benefit of this service.

If some question comes up in your council meeting about which you are not sure, it will pay you to write the League about it.

Some councils take different important actions and then when they get in trouble write to find out how to get out of the trouble.

The better way is to ask for the information and advice first as this will usually save you much trouble and sometimes much expense.

If you want an ordinance or a legal opinion or any other service all you need to do is to write the secretary and your wants will be supplied free of any cost.

Most municipal officials have been working on the second liberty loan and all should get in the harness for future issues.

Letters from the soldier boys tell of the good meals they are having and every one of us who is privileged to stay at home should cheerfully do everything possible to provide the funds to furnish them the very best food and every possible convenience.

We sometimes receive complaints that one or another of the officials do not receive the official publication, but this condition is usually caused by the failure of the clerk to send in the corrections, when there is a change in officials or councilmen.

If all your officials are not receiving American Municipalities have a correct list sent to the secretary and this fault will be corrected.

If the municipal officials would only cooperate, we could greatly increase the advertising carried in American Municipalities and could then give them a better magazine.

THE BOND MARKET

Municipal officials should bear in mind that municipal bonds are now selling under very adverse conditions. Omaha was recently compelled to sell five per cent bonds and the chances are that there will be little improvement in the bond market until after the war is over. This condition should cause municipal officials to hesitate in undertaking any enterprise that is not absolutely necessary during the war. If a municipal official has any surplus energy left after attending to his usual duties, he should expend such energy in the service of the government. In any event it is poor policy to issue any unnecessary bonds with the present high interest rates.

MARSHALLTOWN NOT TO SELL LIGHTING PLANT

A proposition to sell the municipal street lighting system to and buy electricity from the Iowa Railway and Light Company, was recently submitted to the voters of Marshalltown. Many of the newspapers of the state called attention to this election and usually suggested that the fact that such a proposition would probably be approved was an evidence of the failure of municipal ownership. The result of the election, however, seems to show that the people are reasonably satisfied with their ownership of the street lighting system, because both propositions were defeated at the election, in spite of the fact that the city administration and newspapers favored the project. The papers of the state that gave so much publicity to the proposition before election, did not have a line in regard to the result.

VANDERLIP GIVES GOOD ADVICE

Frank A. Vanderlip, president of the National City Bank of New York, in a recent address to the bankers of the District of Columbia, said in part:

"We cannot produce \$19,000,000,000

worth of supplies for the government for war purposes and continue to produce all the other things we have been producing. If a borrower wants money for a plant, the output of which will not be necessary for the war—for a theater or for anything that is not a part of our great purpose—he ought not be permitted to have it, no matter what security he offers.

"There is now a double standard which every banker should bear in mind in making loans: First security and then purpose. This lesson is economy—not doing the unnecessary things—is a lesson that has got to be driven home to a hundred million people in order to be successful in this financing.

NON-ESSENTIALS MUST GO

"It is an unpatriotic thing today for any man to employ labor to produce anything that is not absolutely necessary, for the time being, and that is something the bankers should see clearly and apply to every loan they pass upon."

NEW ENTERPRISES DURING WAR DISCOURAGED BY MR. BAKER

October 1, 1917.

Mr. Will H. Hays, chairman,
Indiana State Council of Defense,
Indianapolis, Indiana.

Dear Mr. Hays: The Council of National Defense has considered the question you raise in your recent letter as to the attitude which should be taken relative to improvements, public and otherwise, which involve large construction work, and recommends as follows:

Every effort that this country is capable of making should be applied to bring the war to a speedy and successful conclusion. The resources of the country in a general way may be said to consist of men, money and material, and during the period of the war any new enterprise or undertaking should be tried and justified by the test: Will the men, money and material so applied best contribute in this way to the winning of the war?

New enterprises which are not fundamental to the efficient operation of the country's necessary activities should not be undertaken. This will not result adversely upon business or conditions of employment because every man and every resource will be needed during the war. All effort should be centered to help with the war.

Very truly yours,

NEWTON D. BAKER,
Secretary of War and Chairman
Council of National Defense.

State University Extends Welcome

W. A. Jessup, President, State University of Iowa, to the League of Iowa Municipalities

Mr. Chairman, and Gentlemen: The fact that there is a state league of municipalities means much to this commonwealth. It is in this way that the cities are brought into closer touch with

conditions of people within a comparatively short time. A hundred years ago there were less than a dozen towns as large or larger than Iowa City. Today, we in America, see ourselves rapidly be-



each other and that problems of common interest are attacked in co-operative fashion.

It is hard to realize the change in the living

coming urban. Even in Iowa the city population is steadily increasing.

This change from rural to urban conditions

means the necessity of an increasing interest in the problems connected with life in cities. With this change in life have come about new problems of co-operative activity in connection with fire protection, police protection, public utilities, streets, sanitation and the many other public benefits. No doubt we shall see the day when we shall do many other things collectively which we are now attempting to meet individually; and with these changes in life it is all the more necessary that the cities come to work together, in order that wise legislation may be effected and municipal practices improved.

We are especially happy at the University to be the hosts of this meeting. In your cities you have been developing in recent years, at great public expense, elaborate systems of public education. You have been increasing your pay-rolls for the matter of instruction, increasing your bonded indebtedness in the matter of buildings. Likewise, the state has been increasing its investment in public education. Within recent years we have seen the development of three great institutions, one at Cedar Falls, one at Ames and one at Iowa City. It is important for you to know in concrete detail the developments that are being made in this direction; and in this connection we bid you welcome to this university, with the hope that you will see the material equipment as an expression of the ideals of the state in the direction of better education in the field of liberal culture, in the field of engineering, home economics, in the field of public service, as school superintendents, lawyers, dentists, pharmacists, physicians and nurses. It is important that you see what the state is doing in connection with the furthering of knowledge in the development of libraries and laboratories. Within recent years, through the action of the Perkins law, the state has asked the University to use its resources to the end that crippled children may be given special treatment.

It is our hope that while you are here, through your visits in class-rooms, museums, laboratories, shops and hospitals, you will come to appreciate more fully the problems that are facing us in connection with the matter of social welfare in Iowa. It is our hope that while you are here you may come to know the members of our faculty, that you may see our student body; that we, on the other hand, may come to know you better, to appreciate your problems more fully, to the end

that we may be able more effectively to train men who can fit into the lives of their communities as you have fitted into yours, who may be able to assume their places of leadership as you have assumed your places of leadership in your respective communities.

In the name of the University and its faculty I bid you welcome. May this be the most valuable meeting in the history of your organization.

DIRT AND DISEASE

Man alone has typhoid fever, and he gets it from filth, to be the consort of a queen and yet to die of a disease that is caused by filth.

That was the fate of Prince Albert, consort of Queen Victoria, who died at the prime age of forty-two from typhoid fever, a disease that is wholly preventable.

Typhoid fever is found only in man. It is caused by a short rod shaped microscopic vegetable which enters the body through the mouth and leaves it in human discharges to enter another human mouth, to which it is carried by fingers, flies, fluids and food.

It is essentially a disease of young adult life. Older people are less apt to have it, probably because they have suffered from an attack of the disease in their youth.

Typhoid fever is known by various names—"slow fever", "low fever"—but, whatever name it is called by, it kills about 8 per cent of those whom it attacks.

A certain percentage of those who recover become carriers—that is, persons who, though well, secrete the organisms in their discharges.

Carriers are largely responsible for the perpetuation of typhoid fever, but the installation of proper sewer systems, the abolition of flies, cockroaches and other filth insects, the maintenance of a pure food supply and the intelligent care of the victim of the disease, are the measures which if rigidly enforced, will rid the country of the disease.—New York Mail.

WANTED AMERICAN MUNICIPALITIES

I will pay twenty-five cents each for a limited number of the April and May, 1917, American Municipalities.

Frank G. Pierce,
Marshalltown, Iowa.

Committee on State Legislation

Report by Hon. W. R. Law, Mayor of Waterloo

A few weeks ago I received a letter from our Secretary Mr. Pierce stating that Hon. E. P. Malmberg of Newton, who is the chairman of the Standing Committee of State Legislation, was unable to attend this meeting and asking me to prepare the report of this committee in his stead. I had attended many meetings of this committee and my first impression was that it would be a simple matter to narrate the important things which this committee had done. I accordingly accepted. I still had this same thought in mind until a week ago when I started the dictation of this paper. It would not be an unusual task to record the experiences of the committee insofar as they relate to the most important matters affecting the Iowa municipalities, which were passed by the last legislature. However, it occurred to me that this report, to be of the greatest service, should be in such form as would permit the cities and towns thru their officers to refer to this report and to ascertain the changes made in the laws of the state, insofar as they concern municipalities. With that in mind I have therefore prepared this somewhat lengthy report, with some doubt as to your willingness to listen to me while I read it all, but with the additional thought that it might find its way into the "American Municipalities" where it may be used for ready reference.

As to the narrative of the story, there is not a great deal to say. The committee met at Des Moines in December and discussed generally the things which affected the various cities and towns of the state. It soon developed upon discussing some questions that there were the same differences of opinion which sometimes appear on the floor of our meetings. After some discussion it was agreed that only the measures which met with the unanimous approval of the committee should be fathered by the committee. It was felt that the best results could be obtained in this manner. A number of bills were prepared and from time to time during the legislative session various members of this committee were in Des Moines explaining and following the various bills

of legislation affecting municipalities, whether they had been recommended previously or not. In other words an effort was made to secure such changes in the laws, insofar as they affected municipalities, as would be of benefit and prevent such legislation as would be a detriment. In this work this committee found that practically all of the members of both Houses were ready and willing to listen and to aid in securing such legislation as would increase the efficiency of the cities and towns of this state. In the legislature were many former members of municipal administrations and practically without exception they were ready at all times to aid this committee.

The so-called Home Rule bill for cities and towns was defeated, but with this exception all those recommended by the committee were passed. The so-called telephone bill was defeated as will probably be reported by the chairman of the committee of Public Utilities. But the committee on legislation of the League of Municipalities did not endorse this measure as a League measure, in view of the fact that there was difference of opinion among its members. The defeat of the Home Rule bill may be ascribed to two causes. First, a mistake in its handling, and I as a member of the committee will take a certain part of the blame. Second, prejudice and a desire on the part of some to favor the present method in legalizing a mistake that a city has made. As to the first cause I might say that when the legislature first convened, as is well known, factionism was well represented in the lower house and without taking sides it may be fairly stated that it remained during the entire session. In view of this fact it was believed by the majority of our committee that the Home Rule bill should be introduced in the House first, thinking that if it passed the House it would have no difficulty passing the Senate. It was therefore introduced there by representative Kimberly of Scott county, who introduced the bill two years before. It was referred to the committee on cities and towns and was by them referred to a sub-com-

mittee of three, where it seemed impossible to dislodge it. It was finally brought out on the floor of the house later in the session and at a time when it was believed that there were enough votes in the House to pass it without question. However, before the bill had been debated a member moved the previous question, which as you know disposes of all debate. This motion was carried and the bill was placed upon its passage. This motion was made in good faith and was intended in good faith, but in view of the factionism which was then existing in the House it was instantly misunderstood by many. In addition to this representative Mac J. Randall of Linn county, rose in his seat just prior to the taking of the vote and stated that he desired to make a statement on the ground of personal privilege. This being granted, he stated in substance "that he objected to voting without debate on the most vicious piece of legislation introduced on the floor of the House during the session." Those of you who know the condition of the lower house last winter, insofar as factionism was concerned, can realize what this statement did. That it was untrue, unfair and unwarranted made no difference. The poison has been injected, and the bill, although receiving the majority of the votes was defeated failing by three to receive a constitutional majority. Immediately following, a motion of reconsideration was filed by three members who favored the bill, but who objected to its being submitted without debate, and it might have been saved had it not been for the lateness of the day and the enormous number of bills which were on before both bodies. In the opinion of this committee this bill is a proper bill and should be submitted at the next session. In case it is, however, it should be introduced before both houses simultaneously and should be freely and openly discussed. As an evidence of its need, there were no less than seventy-two city legalizing acts passed by the last session of the legislature at a very great cost to the state. In spite of this fact there is always the opportunity of the Home Rule bill being defeated by the injecting of prejudice rather than merit, by legislators like representative Randall, who, though they may be fine gentlemen personally, thrive on and thoroughly enjoy the coming to them of municipal officials with requests for legalizing acts, that they by reason of their tre-

mendous power and influence as members of the state legislature, may upon a proper display of humiliation, condescend to extend the wonderful influence possessed, to rectify the technical omission of some city or town, in which he had no interest, in carrying out the wishes of its own people. Without exception this type of men have never had municipal experience either as councilman, mayor, city attorney or any other, and yet they take the position that they alone have the ability to say what every city and town in this state should or should not do. Fortunately there were not many of that type and this committee got along splendidly with practically all of the members.

In order that this body may have the acts of the Thirty-seventh General Assembly in hand, insofar as they relate to cities and towns of Iowa, I have compiled the legislation in two classes. The first being all the acts of the legislation which affect cities and towns to any extent. The remarks concerning them are limited to a mere explanation. I started with chapter one and ended with the addenda. Following this I shall seek to set out the legislation of the most importance. In all that I say, however, it should not be construed as any attempt to claim all of the credit for any of the many measures passed affecting cities nor any of the credit for many of them. It is safe to say that the majority of these measures originated in the cities or towns from which its advocate came and were passed by the influence of the members of the legislature. The Legislative committee, however, was represented almost constantly by our Secretary Mr. Pierce and various other members of the committee, and an effort was made to aid all proper measures in every way possible as to oppose measures which were not deemed wise. With this explanation the following digest of the acts of our last General Assembly is submitted:

1—Chapter 7. This act permits cities of the first class under special charter to issue bonds for the purchase of real estate and to cause said bonds to come due at different definite periods within the limit of fifty years.

2—Chapter 15. This act strikes from the City Manager act the words "and freeholders therein" removing all question as to the right of all electors to vote on all matters the same vote as to participate in any election.

3—Chapter 17. This act authorizes cities having a population of 50,000 and over to erect a municipal court building under certain provisions.

4—Chapter 23. This section repeals section nine hundred thirty-two-n (932-n), supplement to the code, 1913, relating to pensions for disabled and retired policemen, and enacts a substitute in lieu thereof.

5—Chapter 36. This section gives authority to judges of the municipal court to solemnize marriages.

6—Chapter 41. This law changes the population of cities where registration of voters is required. Formerly this was 3,500 but by this act is raised to 6,000.

7—Chapter 43. This act permits cities of the first class or any city acting under the commission plan of government with a population of 35,000, and whose corporate limits are divided by a meandered stream to annually levy a tax of an additional one mill for a bridge fund.

8—Chapter 45. This act extends to incorporated towns the right to levy a grading fund not to exceed three mills on the dollar, widening, extending and grading in street, highway, avenue, alley, public ground or market place.

9—Chapter 48. This act permits an increase in the tax levy for municipal hospital, authorized in section seven hundred forty-one-q (741-q), from "two" to "five" in cities over 5,000 and less than 22,000; permits any city over 5,000 and under 12,000 to issue bonds; and authorizes a special levy not to exceed five mills on the dollar of the taxable value of property within the city, as an additional fund for the improvement, support, operation and maintenance of municipal hospitals.

10—Chapter 51. This act authorized cities having a population of 50,000 and over to establish community center districts and to provide for the establishment and erection thereof of a community center house with recreation grounds under certain conditions.

11—Chapter 53. This act gives to cities under special charter which have established levee improvement commissions, all of the power to prescribe the character, design and type of construction of any ferry dock or landing.

12—Chapter 68. This act extends to cities

under special charter the right to adopt the City Manager Plan of government.

13—Chapter 73. This act provides that whenever the board of health of any city of the first class or any city under special charter shall appoint any permanent officer to enforce the quarantine laws, he shall be appointed with the rank of captain, and shall be under the same rules as the police and fire departments.

14—Chapter 75. This act makes a number of changes in municipal court laws which is applicable to all cities having a population of 20,000 or more. So many changes are made that no attempt has been made to point them out.

15—Chapter 79. This act legalizes the defective platting of town and city lots, which were made prior to the year 1895, and have been recorded twenty years or more.

16—Chapter 84. This act changes the limit of bond indebtedness on parks.

17—Chapter 85. This act provides that no indebtedness which has been or shall be incurred in cities for the purpose of purchasing, erecting, extending or maintaining and operating water works, electric lights and power plants, gas works and heating plants, or of building and constructing sewers, shall be charged against or counted as a part of the one and one-fourth per centum debt limitation.

18—Chapter 126. This act provides for a method whereby cities and towns having a population of 8,800 or less may make either temporary or permanent transfers from one fund to another.

19—Chapter 131. This act permits all cities and towns of the state to make a levy for the maintenance of the fire department.

20—Chapter 138. This act authorizes cities of the first class to designate and establish restricted residence districts and to prohibit the erection, alteration and repairing of buildings thereon, and therein, for certain prohibited purposes.

21—Chapter 149. This act authorizes cities where a tax has been voted and paid to aid in the construction of a highway or combination bridge across any navigable river on the boundary of this state, to purchase such bridge, and provide a method of so doing.

22—Chapter 151. This act decreases the

size of the town from 5,000 to 3,000, which may levy a special tax of not to exceed one and one-half mills for the purpose of acquiring property for the use of a fire department and equipping the same.

23—Chapter 157. This act does away with the posting of city council proceedings and requires all of the proceedings of the city council to be published, except in cities and towns where there is no newspaper published.

24—Chapter 172. This act authorizes cities and towns to oil the streets and alleys and parts thereof and tax the cost to the property benefited and provides a method therefor.

25—Chapter 174. This act changes the size of the city under special charter which has the power to place by ordinance, the exclusive charge, custody and control of all property lines inside the curb lines and upon the public streets in the park commission.

26—Chapter 181. This act makes a few slight changes in the juvenile play ground law.

27—Chapter 182. This act permits and authorizes the erecting of a city hall which may be used for general community purposes, permits its being used for public purposes, and provides the issuing of a special tax in cities of 4,000 or less.

28—Chapter 194. This act grants certain stated additional powers to cities having a population of 50,000 or over and organized under the commission plan of government.

29—Chapter 195. This act permits cities with a population of 8,000 or over having a paid fire department, to have a board of police and fire commissioners.

30—Chapter 196. This act permits city warrants to be drawn in sums of \$1,000 instead of \$500 as heretofore.

31—Chapter 220. This act changes the law relating to the indebtedness of a city or town, insofar as the erection of a city hall is concerned and provides a fund therefor.

32—Chapter 231. This act alters the law relative to water courses as to the time of publication, and changes it as to the class of cities and in other minor ways.

33—Chapter 222. This act adds to section eight hundred forty-g (840-g) 1915, supplement the authority when constructing a sewer to construct therewith outlets and purifying plants.

34—Chapter 226. This act changes the

law relating to municipal courts to the extent of requiring all fees, fines, forfeitures, costs and expenses paid to the clerk and bailiff to be paid to the city treasurer instead of one half to the city treasurer and one half to the county treasurer as heretofore, and providing that the city shall pay all of the expense of maintaining rooms for the holding of said court instead of being divided between the city and county as heretofore.

35—Chapter 232. This act authorizes cities of the state of 1,000 inhabitants and less than 25,000 to maintain a public comfort station; cities of more than 25,000 inhabitants and less than 50,000 to establish and maintain two public comfort stations; and cities of over 50,000 to establish and maintain three public comfort stations and providing a method of management and authority to make a tax levy not exceeding one-half mill to pay the expense of maintaining such stations.

36—Chapter 244. This act changes section eight hundred forty-two (842) of the code by striking out the words "abutting thereon" and inserting in lieu thereof the words "subject to assessment therefor". This change merely harmonizes the section authorizing the issuing of bonds for paying assessment with the new law of the making of assessments.

37—Chapter 303. This act inserts in section one thousand three hundred and six-b-c-d (1306-b-c-d) the words necessary to include "the transmission lines necessary in the erecting of the electric lights and power plant", which is now made a part of that class of public improvements such as water works, gas plants, heating plants, etc.

38—Chapter 320. This act requires that all street and interurban companies in a city of more than 20,000 population, from November 15th of each year to April 1st following, to heat all cars while in service, to at least 40 deg. F.

39—Chapter 342. This act grants to towns, cities, cities under various forms of government, full authority to adopt ordinances, prohibiting the sale to inhabitants of milk or cream from cows which have not been tested for tuberculosis.

40—Chapter 367. This act enlarges upon and provides a method of issuing bonds for the purpose of erecting a garbage disposal plant.

41—Chapter 375. This act amends the subdivision eight (8) of section eight hundred

ninety-four (894) of the 1915 supplement, so as to permit the payment by cities of the gas light, electric light or power inspection department in the city, including the salary of the light inspectors therein from the levy authorized under said section eight (8) and known as the light fund.

42—Chapter 376. This act permits cities having a population of 50,000 or more to increase to 15 mills that levy of 10 mills authorized by section eight hundred forty-o (840-o), 1915, code supplement which a city shall have the power to levy to pay its portion of the costs of paving highways leading into the city.

43—Chapter 384. This act continues for the years 1918, 1919, 1920, 1921 and 1922 the right of park commissioners to make an additional tax of one mill for the sole and only purpose of grading, beautifying and otherwise improving any lands acquired for park purposes previous to January 1st, 1914.

44—Chapter 392. This act adds to the powers of the municipalities to regulate plumbing, the right to inspect and regulate cess pools and vaults in addition to those provided in section 737, supplement to the code, 1913.

45—Chapter 193. This act grants to cities and towns the power to enact ordinances for the suppression, restraining and prohibiting of gambling houses, disorderly houses, houses of ill-fame, road houses where lewdness is carried on, opium or hop joints or places resorted to for the use of opium, or places where intoxicating liquor is illegally kept, sold, etc.

46 Chapter 394, This act authorizes cities to provide for the collecting of fees for the inspection of boilers and magazines. Under code section 793 they were authorized to inspect boilers, but were not given the power to provide for fees to pay for such inspections.

47—Chapter 414. This act simply provides that the right of the board of supervisors is not limited in the establishment of drainage districts to districts outside of cities and towns.

48—Chapter 418. This act changes the employer's liability and workmen's compensation law by stating that the provisions of the act shall not apply as between a municipal corporation, city or town and any persons receiving any benefits under or who may be entitled to, "firemen's

pension fund" or "policemen's pension fund" of any municipal corporation, city or town.

49—Chapter 425. This act gives to cities and towns the right to regulate and prohibit begging in public places.

It is possible that some of the acts of the last legislature have been omitted from the above compilation. However, an effort was made to include all of those of general interest. No attempt was made to report the great number of legalizing acts.

By referring to the above it will be noticed that there are many beneficial acts passed. A few of the most important ones are the laws authorizing cities to oil the streets and to assess the cost to the abutting property; the act giving to all cities and towns the right to make a levy for the purpose of maintaining a fire department; the act to permit cities to maintain comfort stations; the act permitting cities and towns to make either temporary or permanent transfers from one fund to another; the act giving cities full power to prohibit the sale of milk or cream from cows which have not been tested for tuberculosis; the act permitting cities and towns to regulate and prohibit begging on streets; the act permitting cities and towns to build city halls, and to lease them for public or private purposes, and many others which I shall not take up your time to mention. The past legislature was very fair to cities and towns and the thanks of this organization is due to a great many members who aided in the work.

With all of the foregoing out of my system there is little further to be said. All of the changes in the law have not been made which in the opinion of this committee should have been made. As time passes more changes will be necessary. Each city and town will have its own problems, which should be given serious consideration. The plan for future effective work on the part of the committee of legislation was never discussed by our committee, so that what I am expressing is only my own personal ideas. However, it has occurred to me that if this organization of municipalities thru its legislative committee is to become of the greatest service, it can only be accomplished by a well defined working plan among all of the cities and towns of this

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Committee on Judicial Decisions

Report by Hon. Guy J. Tomlinson, Chairman, Cherokee

Your committee on Judicial Decisions respectfully reports the following decisions rendered by the Supreme Court of Iowa during the past year as worthy of the attention of this body:

Hutchins v. Hanna, 159 NW. 199, and 162 NW. 225, was an action to enjoin the city of Des Moines from opening up a new street. It was urged that in a proceeding under Code Section 751, authorizing the taking of property for street purposes, and assessing the property along new street for cost, was unconstitutional, in that the damages allowed would be diminished and might be wiped out by the assessment. It is held that the assessment for benefits is for improvements, not merely for opening the street, and that the section was constitutional.

Newlands v. Iowa Railway & Light Co., 159 NW. 244, was brought to recover damages for destruction of trees along street in front of plaintiff's residence, alleging that defendant had wilfully, maliciously and negligently cut down such trees and destroyed them in building its electric line. Plaintiff's witnesses were allowed to give their estimate of value of the property immediately before the injury, and immediately after, and it was contended that the proper measure was the difference in value between the property after the injury complained of, and what its value would have been, with the trees properly and reasonably trimmed. Defendant's only right was shown by a resolution of the board of supervisors permitting construction of such line, and there was no showing of any franchise in the town of Woodward, where the property was located. Held that the rule contended for by defendant was not the proper measure of damages, and a judgment for plaintiff was affirmed.

Smith v. City of Osceola, 159 NW. 648, was a suit to set aside an ordinance granting a franchise to a telephone company. It was claimed that the power of the city to authorize use of its streets for such purposes could be exercised only through a general ordinance, applying to all persons who might wish to make

such use, and that there was no power to grant the right to one person or company alone. The supreme court held this claim wrong, and that there must be a grant to the applicant of a franchise.

Phipps v. City of Perry, 159 NW. 653. Action for personal injuries sustained by collision of a motorcycle with a pile of paving blocks. It appeared that in repairing a water pipe, the pavement was cut and there was evidence that the paving blocks had been piled on the parking, with no showing as to how they came to be in the street, where plaintiff struck them. It was held that this evidence was sufficient to go to the jury on the questions of the city's liability and negligence. It was urged that plaintiff was a trespasser in that he had no license number and had paid no license fee for his automobile, but this having no connection with the accident, was held to be no defense.

McCallum v. Board of Review, 159 NW. 1036, was an appeal from an assessment. It appeared that the assessor demanded listing of property, and plaintiff asked a little additional time, there being ample time before the assessor was required to turn over his books. This was refused, and the assessor made an assessment of a lump sum, then doubled it as a penalty for failing to list the property. This was set aside for correction of the assessment, without penalty.

Erickson v. Town of Manson, 160 NW. 276, was a personal injury case. A guy wire was strung between two telephone poles in front of plaintiff's residence, the wire being about 5 feet from the ground immediately in front of such residence. This was a small single strand wire, not easily seen. The attention of the mayor had been called to this about a month before the accident, and the condition had existed for some time. In coming from the house to the street, plaintiff ran into this wire and was thrown down and injured. She testified she did not know the wire was there, and had never seen it. It was held that there was sufficient

testimony to justify submission of the liability of the town to the jury; that under Code Section 2159 providing that telephone poles and wires must be so constructed as not to discommode the public, the town must see that they are not so placed as to cause a nuisance and be dangerous.

In *Balcom v. City of Independence*, 160 NW. 305, the city had caused a ditch to be dug in a street. It was so situated that a person crossing the intersection of streets in a straight line would pass by the end of the ditch. The plaintiff, a blind man, fell into the excavation and brought suit for his injuries. No barricade existed around the ditch, which had been dug that day. It was held that the case should have been submitted to the jury; that the care required of a blind person is the ordinary and reasonable care of one of average prudence and foresight, that he was not required to exercise any higher degree of care than one having sight, excepting that his blindness was one of the facts to be considered by the jury in passing upon the question as to whether he did exercise reasonable care and prudence; that it is not negligence, as a matter of law, for a blind person to go about the streets unattended or without constantly feeling his way with a staff.

Hansen v. City of Missouri Valley, 160 NW., page 340, was an appeal from special assessment, the amount assessed being \$794.25 which was reduced by the district court to \$700. The property was assessed at \$1800, some witnesses valued it at \$2800 and some at lesser sums, but the supreme court found it actually worth \$2800. The contention of plaintiff was that the value of the property was fixed by the assessment, and that though the owner might show its value less than it there appears, that it was incompetent for the city to undertake to show any greater value. It was held that the statute referring to this merely establishes a rule of evidence, and that the real value may be shown in any other manner. There was evidence tending to show that in making the assessment the values were estimated by strips 25 feet wide, fixing the relative percentage of value of each strip, but this was held immaterial, that the method of appointment is not defined by the statute, and that method may be pursued which seems best adapted to the purpose and is not a matter of complaint, provided a result is

within the 25 per cent limitation. Plaintiff testified that he had been unable to obtain any higher rentals since the pavement, and that the market value of the lot had not been increased by the improvement, but as he had made his objections to the council on the one question of value, he was not permitted to introduce evidence as to no benefits.

Christopherson v. Incorporated Town of Forest City, 160 NW 691, was an action involving an alley adjoining plaintiff's premises. The town plat was made in 1856, the town incorporated in 1878, and plaintiff bought the entire block through which such alley was laid out in 1883, and at that time the block was surrounded by a fence, with no indication of any alley. She improved the property by erecting a house and other buildings, also filled in and graded and set out trees. She sold the lot south of such platted alley and the purchaser asked that it be opened, and the council was starting to do so when this action was brought. It was held that under all these facts there had been no acceptance of the dedication of the alley; also that the town in permitting a barn to be built across the alley, the ground filled in, and such conditions to exist for such length of time, it was estopped from claiming the alley.

Claim was also made to a strip of the street adjoining, upon which trees and shubbery had been set out, but it was determined that as to that, no estoppel existed; that such improvements were not sufficient to establish an estoppel, and that the acceptance of the dedication was presumed to be as broad as the dedication, and for the full width of the street.

Dow v. Incorporated Town of Nora Springs, 160 NW. 897, was an action for personal injuries sustained by plaintiff by being thrown out of a buggy on the public highway. It was claimed that defendant permitted piles of rock to be placed on each side of a high narrow grade, which piles were calculated to frighten a horse, and did so frighten plaintiff's horse. Plaintiff had both arms broken, elbow joint of one arm fractured, muscles lacerated, and other bruises sustained. It was held that the question as to whether defendant was negligent in permitting the conditions was properly submitted to the jury, and a verdict in her favor for \$1,657 affirmed.

Spalti v. Town of Oakland, 161 NW. 17,

was an action to annul a contract entered into by defendant for paving, it being claimed that the notice of resolution of necessity was insufficient. The court says that the statute has not attempted to specify in terms the language of such notice of resolution of necessity, excepting that it must state the time when it will be considered. This notice recited the streets to be improved and between what points on each street, and it was held that such notice was sufficient, and that the published notice is not required to contain the entire resolution of necessity. As to this, the court says: "Such particularity may be commendable by way of an excess of caution, but it has never been held necessary, and no statute requires it, and to now apply such rule would in our judgment establish an undesirable precedent. Substantial compliance with the statute is all that can or ought to be required.

The objection particularly urged to this notice was that it did not in terms say that the property abutting would be assessed.

Landis v. City of Marion, 161 NW. 26, was an action to recover damages to plaintiff's property by reason of excavating street below established grade. The grade had been established, plaintiff improved her property in accordance therewith, but when paving was constructed, the surface thereof was about 1½ feet below such grade. The city claimed that in order to make a safe and satisfactory pavement, it was necessary to make some slight and immaterial changes in grade around the street intersection and that such changes were to the advantage of the property. The plaintiff appealed from the assessment of cost of paving, and upon appeal the assessment was reduced from \$464.64 to \$250.00, and thereafter she brought this action. It was contended that this appeal was practically a suit for damages, and that she should not thereafter bring a damage suit, but it was held that as the assessment made had been held void on appeal, she was entitled to recover damages sustained by her.

Kuehl v. Town of Bettendorf, 161 NW. 28, was an action brought to quiet plaintiff's title to a strip which defendant contended was part of a street, also to another strip claimed to be an alley. The street was platted 66 feet wide, and it was held plaintiff could not establish title to such strip by adverse possession; that the town

was not required to improve the street for its full width, that the presumption was that the street was accepted for its full width. The alley was open excepting along plaintiff's lots, and plaintiff had a fence across it. The alley had been opened and used for 20 years before. The court says that the failure of municipalities to remove obstructions from streets and alleys or to improve them before the public convenience requires such action, will not amount to an abandonment or an estoppel. That whether there has been an acceptance is a matter of fact, and that as a rule, mere non-user will not constitute an abandonment or estoppel.

Northern Light Lodge No. 156 I. O. O. F. of Iowa v. Town of Monona, 161 NW. 78, was an action brought to enjoin the collection of a sidewalk assessment. The walk was built along a tract of land which plaintiff had platted as a cemetery into lots, and had sold all lots adjoining the street, and the assessment was made against the entire tract. This was held void. This case is particularly important in that it holds that under the law it is not necessary to give notice of and adopt a resolution of necessity before constructing a side walk, but that the procedure for such improvement is much shorter and less cumbersome. It is also held that the assessment for construction of a sidewalk is limited to the property abutting thereon.

Halverson v. Mullin, 161 NW. 309, is a holding that there is no requirement that the city clerk must file certified copy of resolution of necessity in the county auditor's office at any particular time, but that until the same is so filed, no lien attaches for the cost of such improvement to be made thereunder.

McCord v. City of Cherokee, 161 NW. 440, was an appeal from a special assessment for paving in my own town. The appellant prepared a bond and filed it with the city clerk, but never asked specifically that such bond be approved, and no approval thereof was made. The court dismissed the appeal, holding that it was the duty of the appealing property owner to cause his bond to be specifically approved, and without that, no appeal could be maintained. Also that Code Section 257 providing that no defective bond shall prejudice the party giving it, providing it was rectified within a reasonable time, applied only to defective bonds, and not to

the omission to obtain an approval of one not defective.

Town of Alvord v. Railway Co., 161 NW. 467, holds that a town may not condemn railroad depot grounds for street purposes, under the rule that where land has been appropriated for public purposes, it cannot be again condemned for other public purposes inconsistent therewith without express statutory authority, which does not exist for this purpose, and that the use of ground for street purposes is inconsistent with its use for depot purposes.

Boyd v. City of Oskaloosa, 161 NW. 491, was an action for damages sustained by reason of the discharge of the affluent from a septic tank into a stream flowing through plaintiff's property. It was shown that a real nuisance existed, and plaintiff recovered judgment, so it is evident that towns using septic tanks must at their peril see that the discharge therefrom does not create a nuisance.

Gilchrest & Co. v. City of Des Moines, 161 NW. 645, holds that property owners objecting to assessment against their property have the burden of showing alleged non-compliance with the plans and specifications.

Dobson v. City of Waterloo, 161 NW. 667, was an action for personal injuries on account of plaintiff falling upon the snow and ice on a sidewalk. At the close of plaintiff's testimony, defendant asked for a directed verdict, but plaintiff asked leave to introduce further evidence, which was permitted, and this action of the court was held proper.

In discussing the evidence in this case, the court says: "As to the sufficiency of the evidence to support the verdict the finding must also be in the affirmative. The line of demarcation between sidewalk conditions of ice and snow which give rise to liability and those conditions which do not give rise to such liability is not very satisfactory. It can be contended with some force that rough and uneven conditions of ice and snow are frequently quite as natural and unavoidable as the smooth and level conditions. Under the rule obtaining in such cases, however, we have deemed the field of doubt in a given case as a field of fact, and therefore as the field of the jury. The question in this case was submitted to the jury by instructions of which no complaint

is made. We find no ground therefore to interfere with the verdict."

Wolford v. City of Grinnell, 161 NW. 686. The plaintiff, while driving an automobile about one o'clock in the morning, struck a manhole which projected about 16 inches above the surface, the same being hidden by weeds and grass. There was no testimony that the city built this manhole, but it was held that it was the presumption that it did. It was claimed that the automobile had not been registered as required by law, but that the plaintiff was continuing to drive it under the registration made by the former owner, but this was held to be immaterial and no defense.

First National Bank v. City of Council Bluffs, 161 NW. 706, was an appeal from the board of review. It is held that an assessment against a bank is not excessive because the value of United States bonds held by the bank was not deducted; also that when a person makes a complaint to the board of review, it may be done orally or in writing, but that he must state his claims with sufficient particularity to enable that body to understand what matters are complained of, and he can raise no question on appeal save those presented to the board, and that a mere objection that an assessment was without warrant or authority of law is insufficient to present specific objections to the validity of the law under which it was made.

Cavanagh v. City of Des Moines, 162 NW. 17, was an action to cancel an assessment made for sidewalk. Plaintiff had owned a forty acre tract, but had platted it before construction of the sidewalk, which abutted upon 18 of the lots. The assessment was made against the forty acres, and this was held to be beyond the power of the council to make, was set aside, and the case remanded, with jurisdiction reserved to the city to re-assess the cost of the walk in accordance with the statute.

Ellyson v. City of Des Moines, 162 NW. 212, was an action to enjoin the city from levying paving assessment, complaint being made that the resolution of necessity was for repairing a street, while the work actually done was reconstruction of the paving. The street had been paved with asphalt upon concrete base, and the asphalt had become badly worn and contained

holes, waves, and other defects. The resolution stated that it was necessary "to make improvements by repairing by patching the sheet asphalt". The contractor removed the old asphalt the full width and most of the length of the street, and it was contended that the work was therefore re-construction, and unauthorized. It was held that the city had power to do such repairing, and that an injunction would not lie, and that plaintiff's recourse was to object to the assessment before the council.

In *re* Jefferson St. Sewer, 162 NW. 239, it is held that the action of the city council in ordering a sewer constructed and the cost thereof assessed against abutting property is a legislative determination that the property is benefitted, which the court may not review.

In this case, it was contended that the property in question was already supplied with sewer facilities which were ample for sanitary purposes, that the new sewer was intended for both sanitary and storm purposes, and complainants insisted it was built to carry off water from other parts of this city, and not from their property. The court held that a sewer is built for the future as well as the present, and that the benefit thereof need not be apparent when built, if it will appear in the future.

This case holds squarely that while the owner of abutting property may object that it has been over-assessed, he cannot if the proceedings are otherwise regular, be heard to say that it is not liable to be assessed at all.

The court remanded the case for purpose of determining the amount which should be assessed, the district court having cancelled the entire assessment.

City of Des Moines v. Iowa Telephone Co., 162 NW. 323, was a suit brought to compel defendant to pay rent for use of streets and alleys with its poles and wires, under a city ordinance so providing. Following the holding in a previous case, in which it was held that telephone companies starting business before the adoption of the Code of 1897 have a perpetual franchise, this ordinance was held void.

Hall v. City of Shenandoah, 162 NW. 575, was an action for personal injuries received by falling over a wooden trough extending over the sidewalk from a building, such trough being about 18 feet long, 6 or 8 inches wide, and 4 or

5 inches high. Plaintiff's witnesses were allowed to testify to their having fallen over this same trough, and such evidence was held admissible to show how the witnesses recalled the situation, and also as tending to prove that the nuisance had existed for such a length of time that in the exercise of ordinary care the city should have discovered it. The plaintiff obtained a verdict for \$521.65, which was affirmed.

Carpenter v. City of Hamburg, 162 NW. 602, was an appeal from paving assessment. It was shown that the proportionate cost of one-half the paving in front of each lot, including the intersections, was \$165.50, and some of these lots having been assessed at a higher rate, the district court reduced such assessment to that sum, on the theory that a lot could only be assessed for the cost of paving in front of it.

The supreme court says upon this phase of the case: "These lots were highly improved and advantageously situated. The record shows that the pavement of the street greatly benefitted them. There is no affirmative showing that they were not benefitted to the extent of the assessment. The council so found, and there is no evidence tending to show that their finding in this respect is not supported by the facts. We are confirmed in this by a consideration of the finding of the trial court upon this point. The trial court found that Lots 10 and 11 were worth from \$4,000 to \$5,000, but made no affirmative finding that the lots were not benefitted to the extent of the assessment, and rested its conclusion on the thought that the assessment could not legally exceed the cost of paving in front of each lot. This theory is not tenable. It is for the council to determine the necessity for the improvement, and the extent of the improvement required by the necessities of the case. Having determined the necessity, it has a right to make the improvement. The council fixes the limitation of the improvement. The improvement is an entity. It has the right to contract for the making of the improvement. To this extent it incurs costs which must be paid. It has a right to assess these costs against the abutting property, ratably and equitably; to assess against each property its proportionate share of the costs of the entire improvement, not to exceed, however, the benefits conferred upon the particular lot assessed. It is for the city

council to determine these benefits before making the assessments. The assessment for benefits, however, cannot exceed 25 per cent, of the actual value of the lot-assessed. The improvement must be considered as an entirety. The costs of the improvement are an entirety. The contract is so made for the improvement. Upon the completion of the work under the contract, the cost of the entire entity is ascertained and determined. This is to be paid by someone. The statute provides that it may be assessed against abutting property, ratably and equitably, according to the benefits conferred upon each lot or parcel of land abutting, with two limitations: that it shall not exceed 25 per cent of the actual value of the lot or parcel of land assessed, and shall not exceed the actual benefit conferred upon the lot by the improvement. By the improvement means the improvement as an entity.

And further upon the same topic: "We hold, therefore, that the court erred in holding that these lots, abutting as they did upon the improvement, could not be assessed for more than the actual cost of the improvement in front of the particular lot. The council specially found that the assessment levied against these lots was in proportion to the special benefits from the improvement. The evidence supports this finding. The council also found that it did not exceed 25 per cent of the value thereof at the time of the levy. This also finds support in the evidence. The case must therefore be reversed and remanded for judgment in accordance with this opinion."

Babcock v. City of Des Moines, 162 NW. 763, holds that where an employee is within the provisions of the Soldier's Preference Law, his salary may be reduced or his office abolished where such action is taken in good faith and not merely as a method of getting rid of the employee, but that if there was any bad faith in either action, it would be within the prohibition of that act.

Vilas v. Railway Co., 162 NW. 795, was an action for damages for change of grade of a street, the contract being such that the railway company stood liable for damages in lieu of the town. A building has been built upon the plaintiff's lot, conforming to the natural surface of the street; thereafter and in 1905 the council established the grade of said street at the natural

surface. In 1913, by another ordinance, the grade of this street was raised several feet and this suit followed. It was held that the establishment of a grade is merely preliminary to the improvement of the street, and no claim for damages could be based on that alone, but must follow an actual physical change of grade.

Judge Ladd in this opinion puts the essentials for an action of this kind in a nutshell, as follows: "To entitle an abutting lot owner to recover under this statute five elements are essential: (1) A grade must have been established by ordinance; (2) the lot owner must have improved his lot with reference to the grade so established; (3) a new and different grade subsequently must have been established by ordinance; (4) the municipality must have changed the physical grade to conform to the new paper grade; and (5) in consequence thereof the owner's property must have been damaged, injured, or diminished in value."

Johnson v. City of Ames, 162 NW. 858, was brought to recover damages for injuries sustained by falling upon a sidewalk claimed to be defective. It was claimed that there was a depression in the sidewalk from 2 to 4 inches deep with broken pieces of concrete in the depression and around the edges, and this condition was shown to have existed for several years. The supreme court quotes with approval from a South Dakota case, where the court in holding a depression in the street 6 or 7 inches deep and 12 feet wide might not be found to constitute negligence on the part of the defendant city, observed that:

"It seems to be generally held that a municipal corporation is not liable for every accident that may occur within its limits. Its officers are not required to do every possible thing that human energy and ingenuity can do to prevent the happening of accidents or injuries to the citizens. The law does not require that the city shall do more than keep its streets in a reasonably safe condition. The obstructions or defects, to make the corporation liable, must be such as are in themselves so dangerous that a person, exercising ordinary prudence, could not avoid injury in passing them. It is only against defects in streets of sufficient gravity to justify a careful and prudent man in anticipating danger from the existence thereof that a municipality

is bound to guard. Cities are not required to keep their streets from irregularities and trifling defects. It is the duty of a municipality to see that all its streets, open for travel, are kept in repair and free from obstruction, and this duty has been performed when the way is without obstruction, or such structural defects as would endanger the safety of travelers in the exercise by themselves of ordinary care."

And our court then says: "That one has suffered injuries in travelling over the street, alone, does not justify the inference that the street is negligently defective, nor that the pedestrian has been careless. Such injury may have been purely accidental, even though occasioned by some want of perfection in some portion of the highway without fault of the traveler. Such may have been the situation in the case before us. In any event we are persuaded that the proof was not such as to warrant a finding that it was due to any want of ordinary care on the part of the defendant. Had the sidewalk been originally constructed with such depression, the city could hardly have been thought negligent. When constructed, the walk was level, and the depression was occasioned by the action of the elements, or possibly the hand of man, and we seem not to have reached the time when even ordinarily prudent men are so vigilant as to anticipate every possibility of accident, and though we seem to have come dangerously near declaring municipalities insurers of the safety of pedestrians and exacting perfection in the maintenance of the walks by cities. If the depression was rough, the respect in which was not disclosed, and if there were small pieces of concrete therein, they were not shown to be such as to render the way dangerous. Undoubtedly, the depression constituted a defect in the walk, but that alone was not enough. It must have been a defect of such a character as, in view of its location and the use made of the walk, to attract the attention of the officers of the city and cause them, in the exercise of that degree of caution an ordinarily prudent person would exercise under like circumstances to anticipate danger therefrom to the pedestrian passing along the walk, and we are of opinion that the defect was not such as thus to put the city on its guard. The city was not at fault, and the judgment is reversed."

Carter v. City of Council Bluffs, 163 NW.

195. The plaintiff caused certain real estate to be platted as an addition to the city and requested the council to approve the plat thereof. This the council refused to do, unless the plaintiff would give a bond sufficient to cover cost of grading the streets and alleys so platted. It is held the council could not attach such condition.

Barber Asphalt Co. v. District Court of Polk County, 163 NW. 214. Here an appeal from special assessment was taken. The assessment was made December 1, 1913, decree entered in district court in July, 1915, and case affirmed by the supreme court March 12, 1917. When the property owners attempted to pay such assessments as confirmed against them, the county treasurer demanded payment of a penalty thereon of one per cent a month from March 1, 1915, for the benefit of this plaintiff. The district court entered a supplemental order that such assessments should draw interest at six per cent from date thereof, and penalty of one per cent a month from March 12, 1917, date of affirmance by the supreme court. This action was brought to test the legality of the order denying the one per cent a month penalty from March 1, 1915, and it was held to be a proper order.

Cedar Rapids & Marion Street Railway Co., v. City of Cedar Rapids, 163 NW. 387. Under its franchise plaintiff was to pave between its rails and tracks and one foot outside. Building a line upon a street where pavement existed, the city council fixed the value of that amount of the paving, and demanded that plaintiff pay therefor. It was shown that the pavement was old, and would need replacing in a short time, but it is held that the city has the right to fix the reasonable value to be paid by the street car company where the paving was of some value, even though it did require early replacement.

Snyder v. the City of Belle Plaine, 163 NW. 594, was an appeal from special assessment for paving, and it is held that if the special benefits conferred by a street improvement upon a given tract exceed the cost of the improvement immediately in front of the tract, the council may apportion a levy the excess upon such other property benefitted as to equitably distribute the burden of the whole cost of the improvement among the property owners in a given district; that the frontage of a tract may be taken into

account as the basis for determining the benefits to the tract, and the mere fact that an assessment may have been substantially in accordance with the cost of that part of the improvement in front of such tract is not conclusive that the assessment was made according to the special benefits conferred, and does not overcome the presumption that the council proceeded according to law; that from the mere fact that two separate tracts of materially different area are assessed the same amount, it will not be presumed that such assessment is inequitable and unjust and not according to special benefits.

City of Valley Junction v. McCurnin, 163 NW. 345, was an action brought to enjoin obstruction of an alleged street, and it is there held that evidence showing very slight improvement of a street (in this case dragging same twice and a little grading done) was sufficient to show acceptance of a dedication, in view of the use thereof by the public. It is said that all that is essential is that the street be unequivocally recognized as such by the city, and that what was here done surely did this much.

Quite a number of decisions in cases involving municipalities of the state have not been herein referred to, but in view of the extreme length of this report as it stands, we have endeavored to refer only to such cases as involved points of special interest to this organization, or where decisions have placed new or different constructions upon the law. The subject is really too extensive to be covered in a single report, and some of these cases could well be the subject of lengthy consideration, had we the time.

LARGE INCREASE IN TRAFFIC

Municipal officials have to think fast nowadays to keep up with the growth of traffic on their streets. An official traffic census, taken in 1915 at seven points in Seattle, Washington, revealed 17,568 motor vehicles. In 1911, a total of 5,160 was counted under the same condition. These figures show an increase of about 240 per cent in four years.

MONOLITHIC BRICK PAVEMENT FOR STORY CITY

Story City has contracted for 27,000 square yards of monolithic brick pavement at \$2.35 per

square yard. Wire cut lug brick will be used on a 3 inch concrete base. The contract for 800 feet of curb and gutter was let on the basis of \$1.00 per foot for 6 inch curb with 3 foot gutter. Extra excavation was let at \$.50 per cubic yard.

Committee on State Legislation

(Continued from page 47)

state. Necessarily when a committee without any previous data to guide them save their own experiences, gather together to discuss legislative matters only the matters will receive attention that have come to the notice of the individual members. With this thought in mind I would urge that the legislative committee to be appointed for next year should organize and start working as soon as possible in securing ideas and preparing changes which they would compile and recommend for consideration by the committee, which follows them and which will be in service at the time of the next meeting of our legislature. The alteration of the laws of our state is not an easy matter to secure and no individual or municipality should advocate a change unless that change has been carefully prepared in order that all apparent defects may be stricken out before the bill is introduced. For this reason an active working legislative committee, considering all suggested changes carefully, and preparing the changes with equal carefulness, and having ample time to consider, will be far better qualified to meet the needs of this organization at the next legislature than the present committee has been.

Members of the legislature are glad to listen to city officials, but they are entitled to know the judgment of the city officials and to know their reasons for desiring a change. Accordingly carefully drawn bills supported by good reason will always have a chance to be written into the law. With such an arrangement; with the co-operation of every municipality in the state of Iowa; and with every municipality taking an interest in the association and displaying a willingness to make suggestions to the committee, this branch of the League of Iowa Municipalities will become one of its most important branches and a real service to all.

Report on Coal Question

Hon. Clifford Thorne Reports on Coal Prices to League of Iowa Municipalities

I beg herewith to make the following report relative to my services in connection with the investigation and establishment of legislation and orders relative to the maximum prices on coal and metals:

On June 29, 1917, you requested me to take such steps as might be necessary looking toward the securing of efficient legislation, and the establishment of reasonable maximum prices on coal and metals.

On July 3, 1917, I appeared at a special meeting of the Senate Committee on Interstate Commerce, urging that the food bill be so amended as to give the Federal Trade Commission, or some other proper tribunal, power to establish proper prices on these commodities during the war. Five days previous to that the Peabody Committee established their celebrated schedule of maximum prices on coal which was heralded throughout the country as causing large and substantial reductions in the market prices on coal throughout the United States.

The official bulletin, published daily under the order of the president by the Committee on Public Information, described the conference at which the Peabody prices were established in the following language: "Trade secrets between competitors, cost prices, other confidential information was laid on the table and the government, acting as judge, decided with the entire approval of the operators what would be the highest prices paid at the mines for coal."

A few days later a member of the Cabinet stated that these prices were "exorbitant, unjust and oppressive".

An attempt had been made in the house to authorize the Federal Trade Commission to fix the maximum prices on coal, but the amendment providing this was killed in the house. The Senate Committee on Interstate Commerce, and various members of the committee, offered different bills. Senator Pomerene and Senator Cummins offered a measure which was finally adopted as an amendment by the senate, giving

adequate authority to the Federal Trade Commission to establish maximum prices on coal.

Some prominent senators questioned the constitutionality of federal regulation of prices on these commodities. I immediately prepared and had printed a brief on the question of the constitutionality of such legislation and action by the national government.

When the passage of the bill by the senate became assured I filed a memorial with the Federal Trade Commission asking for a hearing.

Up to this time I had represented the League of Iowa Municipalities and the Iowa section of the National Electric Light Association, but it was at this period when the Utilities Bureau, of which the League of Iowa Municipalities is a member, you yourself being on the Advisory Board, authorized me to appear for the bureau before the Federal Trade Commission. The commission granted a hearing on the very day that the president signed the food bill.

The Federal Trade Commission conducted a somewhat extended investigation of the cost of producing coal. The president of the United States, basing his findings on the investigation of the Federal Trade Commission, on August 21, directed the following to be observed as the maximum prices on coal throughout the United States:

State	Run of Mine	Prepared Sizes	Slack or Screenings
Illinois	\$1.95	2.20	1.70
Illinois (third vein)	2.40	2.65	2.15
Indiana	1.95	2.20	1.70
Iowa	2.70	2.95	2.45
Pennsylvania	2.00	2.25	1.75
Maryland	2.00	2.25	1.75
West Virginia	2.00	2.25	1.75
West Virginia (New River) ..	2.15	2.40	1.90
Virginia	2.00	2.25	1.75
Ohio (thick vein)	2.00	2.25	1.75
Ohio (thin vein)	2.35	2.60	2.10
Kentucky	1.95	2.20	1.70
Kentucky (Jellico)	2.40	2.65	2.15
Alabama (big seam)	1.90	2.15	1.65
Alabama (Pratt, Jaeger & Corona)	2.15	2.40	1.90



River Road, Rockford, Ill. Treated with "Tarvia-B" in 1915 and 1916

Not an Expensive Road, Either!

ROADS like this, thousands of miles of them all over the country, testify that Tarvia has solved the macadam-road problem.

You might suppose that this road with its tough, smooth contour must be expensive, but such is not the case. This is simply an ordinary macadam roadway which has been treated with a surface coat of "Tarvia-B" to preserve the surface and prevent dust.

The first time this was done was in 1915. The road surface was swept clean and "Tarvia-B" was sprayed on and covered with a light coating of sand or stone screenings.

The Tarvia percolated into the surface and bonded the stone, somewhat like cement in concrete, except that Tarvia never lost its elasticity, and

the layer of Tarvia-concrete remained resilient and tough.

In 1916 another light coat of "Tarvia-B" was spread over the road.

"Tarvia-B" does not cost much and is very easy to apply. The expense of maintaining a macadam road with "Tarvia-B" in this way is less than the expense of maintaining it in the old way, by incessant repairs, water sprinkler, etc.

Users of the highway and near-by residents appreciate such a smooth, dustless, mudless, durable road. But as taxpayers they appreciate it still more, for the use of Tarvia reduces their annual up-keep expenses and gives them *better roads and lower taxes*.

Send for the evidence. We have various booklets which we are glad to send to any inquirer on request.

Special Service Department

This company has a corps of trained engineers and chemists who have given years of study to modern road problems. The advice of these men may be had for the asking by anyone

interested.

If you will write to the nearest office regarding road problems and conditions in your vicinity, the matter will have prompt attention.

The *Barrett* Company

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THE BARRETT CO., Limited:
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Alabama (Cahaba & Black Creek).....	2.40	2.65	2.15
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Missouri.....	2.70	2.95	2.45
Oklahoma.....	3.05	3.30	2.80
Texas.....	2.65	2.90	2.40
Colorado.....	2.45	2.70	2.20
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Washington.....	3.25	3.50	3.00

Prices so established by the President are tentative maximum prices. In some states the reduction was large; in others there was practically no reduction and in some an advance. The general effect of the entire order was a large and substantial reduction in prevailing market prices on free coal at the mines.

One of the states where the order failed to give any substantial relief was in the state of Iowa on coal produced in Iowa. Iowa interests should immediately take proper steps for a revision of the schedule of prices on coal f. o. b. the mines in the state of Iowa. Mr. Garfield, who has been appointed the Fuel Administrator, has not as yet dealt with the retail prices.

The order as to anthracite coal did not cause the change affected by the order as to bituminous coal. I do not care to comment on the justice of the order as to anthracite coal as I have made no investigation relative to the same, my work having been confined to the bituminous coal proposition.

The net result of the reduction in the prices on bituminous coal in those districts producing the bulk of the coal consumed in Iowa and neighboring states is illustrated by the following table showing the prices in existence prior to the President's order compared to the market prices on coal after the order:

CENTRAL ILLINOIS

Peabody Committee Price		Market Prices July 26, 1917	President's Prices Aug. 21, 1917
June 28, 1917			
\$3.50	Lump	\$3.25 to 3.50	\$2.20
3.50	Egg	3.25 to 3.50	2.20
3.50	Nut	3.25 to 3.50	2.20
2.75	Mine Run	2.59 to 2.75	1.95
2.75	Screenings	2.25 to 2.50	1.70
CLINTON COUNTY, INDIANA			
3.50	No. 4 Dom. Lump	3.50	2.20
2.75	No. 5 & 6 M. Run	2.75 to 3.25	1.95
2.75	5 & 6 Screenings	2.25	1.70

SMOKELESS			
3.00	Mine Run	3.25	2.15
3.50	Lump & Egg	3.75	2.40
HOCKING			
3.50	Dom. Lump	3.75	2.60
KANAWHA			
3.50	Dom. Lump	3.75	2.25
EASTERN KENTUCKY			
3.50	Dom. Lump	3.50 to 3.75	2.20
3.50	Egg	3.50 to 3.75	2.20

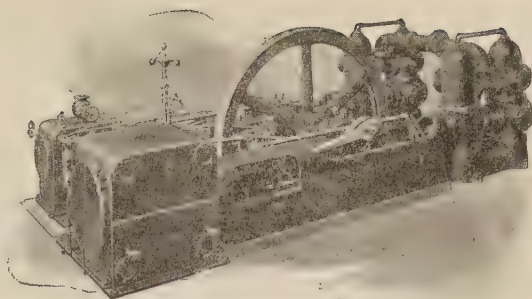
It will be noted that the reductions in the market prices on free coal in the state of Illinois range from 80 cents to \$1.30 per ton. This has meant a very large saving. The annual production of coal in Illinois is approximately 70,000,000 tons.

It is true that many contracts provide lower prices than those stated above, but as these contracts expire the higher prices have been established. The average price on all coal, contract and "free", last year in Illinois was \$1.25. The prices established are much higher than that, although much lower than those charged at the time the order was made. This serves to show what exorbitant prices were being charged by the coal operators.

Your representative had the good fortune to appear before the proper tribunals at crucial moments in this work. Within five days after the Peabody Committee had acted we appeared before the Senate Committee on Interstate Commerce seeking the passage of an amendment by the United States Congress. When the passage of the bill became certain we applied for a hearing before the Federal Trade Commission. On the very day that the President signed the Lever Bill we appeared before the Federal Trade Commission.

Shortly before the Illinois State Council of Defense acted, we filed a statement with that tribunal; and at the request of Judge Carter in Illinois, we filed a statement with him just prior to the action which he would have taken had not the federal government acted. In each of these instances which I have recited the action taken was favorable to our claims and immediately followed our participation in the work. This is merely a series of co-incidences.

We have not accomplished as much as we feel we should have accomplished; but when we consider the large increase in the prices of other commodities that other industries are charging, I feel that the results of our labors have been worth while.



MARSHALLTOWN, IOWA

Hans Madsen, Superintendent, referring to a 4,000,000 gallon pump installed by this Company, says:

"We are highly pleased indeed. The pump performs far beyond our expectations and the guarantee, and the engine works perfectly."

Write for Bulletin 1637

Allis-Chalmers Manufacturing Co.

Milwaukee, Wisconsin

CONCRETE FOR PAVING

Figure it out and see

Initial costs of highways vary. To give the macadam road the benefit of every doubt, put its construction cost 20% below that of concrete.

Now take up the figures of maintenance: The records of various state highway departments show that annual maintenance on a waterbound macadam road is 6 to 12 times as much as for an all-concrete road.

Therefore, considering both first cost and maintenance, a mile of macadam actually costs more after four years than a mile of concrete. After seven years the macadam road needs rebuilding, but the concrete road is as good as ever. In eight years, total macadam road cost per mile is likely to be at least 50% more than for a mile of concrete, and the costs keep piling up!

Atlas Road Building Service

Our Highway Department will gladly assist in preparing plans, proposals and cost estimates and will arrange for inspection if desirable. Send for our free book "Concrete Highway Construction."

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Municipal Engineering Notes

By D. C. Faber, Industrial Engineer

WINTER OPERATION OF INTERMITTENT SAND FILTERS

The operation of sand filters in the winter is more difficult than at other times, on account of lessened bacterial action, due to cold weather,

freezing takes place, the ice formed on top of the sewage will remain suspended on the ridges and succeeding doses of sewage will flow underneath the ice. The ridges should be thrown up every three or four feet, and not be any higher than necessary to prevent freezing at the



and the tendency of the sewage to freeze on the filter beds.

In order to prevent the freezing of the sewage on the surface, thus sealing the filters and rendering them inoperative, filter beds are usually "ridged" for cold weather operation, so that when the beds are dosed the sewage flows in the gutters formed between the ridges. If

surface of the bed. At the close of the cold period the valleys between ridges must be freed from all deposit, or scum, before leveling down the ridges for warm weather operation. All dirty sand should be removed at this time, in order to keep the beds clean.

*From Bulletin 16, Engineering Extension Department, Ames, Iowa.

Classified Advertisements

Officers of members of the League of Iowa Municipalities may run one advertisement each month free of cost.

FOR SALE—All brass Artesian well cylinder 3¼ in. x 48 in. with bronze ball valves and 350 ft. of 3½ in. number 1 wood rods and couplings, suitable for pumping from a deep well using steam head or lever stroke. For particulars, address, G. F. Taylor, City Clerk, Stuart, Iowa. 107

FOR SALE—Cities wanting or needing a milk laboratory apparatus can get a bargain by addressing, John Berwald, Mayor, Davenport, Iowa. 107

WANTED—Second hand 10,000 to 16,000 gallon storage tank for gasoline. Lock box 235 Sheldon, Ia. 107

FOR SALE—A number of good gas meters. Will be sold at a bargain. W. D. Hanna, Clerk, Winfield, Iowa. 57

FOR SALE—Having recently made arrangements with a power company to furnish electricity the town of Coggon has the following for sale. 1-28HP Bates & Edmonds double cylinder gasoline engine. 1-125 Volt 120 amp. continuous load D. C. generator, 1200 R.M.P. 1-55 volt 25 amp. continuous load D C generator, 1400 R.M.P. 1 fully equipped switch board. Everything in good condition. For information write F. W. Lindahl Town Clerk. 106

FOR SALE—The city of Shenandoah, Ia., has for sale. 1 Seagraves Hose Wagon in extra good condition fully equipped. 1 Hale Hose Wagon (new) built especially for Tournament purposes. 2 Sets of Hale harness and hangers nearly new. 1 Hand drawn ladder truck with ladders. 2 Hand drawn hose carts in excellent condition. Also will sell one span of fire horses, (thoroughbreds) young and well broken for fire service. Address inquiries to C. M. Conway, city clerk. 106

FOR SALE—Having recently made arrangements with a neighboring town to furnish electric current for lighting and power. The town of Shelby offers for sale a Gas Lighting Plant, complete in good running order will sell at a bargain, as the town has no use for it, address all communications to town clerk of Shelby, Iowa.

FOR SALE—The incorporated town of Milford has for sale 1 Davis carbide feed acetylene gas plant in perfect condition. Model B generator 75 pound capacity. 23 burners with fixtures. 150 feet ½ inch pipe. Will sell at a sacrifice. For information write J. E. Shelledy Clerk, Milford, Iowa.

FOR SALE—Having recently installed a water works system the town of Lowden offers for sale a chemical engine in good condition. For particulars write Richard Parr, Town Clerk, Lowden, Iowa. 116

PAINTING—If you have water tower or anything in similar line you want painted, write W. O. Potter, Fredricksburg, Iowa.

FOR SALE—Having completed arrangements with a neighboring city to furnish our electric current we offer the following at a bargain. One 25 horse power special electric Fairbanks Morse Engine. One 20 K. W. Peerless Generator. 60 Amp. hour battery and switch board instruments. Everything in good condition. Address Town Clerk, Hudson, Iowa

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FOR SALE—One steel tower and wooden tank suitable for water works in small town. Will sell cheap. Write C. C. Clifton, Clerk, Thompson, Iowa. 617

THE POSITION OF MUNICIPALS

From the Bond Buyer, New York

The sale of several fair-sized blocks of the new municipals in the face of the Liberty bond campaign suggests an inquiry as to what these purchases mean. The bond houses are not now making new offerings and, for the most part, do not intend to undertake the distribution of any new securities until the second Liberty bond issue is taken care of. Hence, the buying that has taken place since the first of the month must be in expectation of future business. This is the explanation of the purchase by a New York syndicate of \$500,000 Akron School 5's on which no offering price has been set. Other "buys" are no doubt being made on the same theory i. e., with the Liberty bonds out of the way, there will develop a better market for tax-exempt municipals than there has recently been.

The position of city bonds in the investment world may be quite clearly analyzed, now that the 1917 Federal tax schedules are known and the policy of the government with regard to taxing government bonds apparently firmly established. As a foundation for all investment security values, we have the $3\frac{1}{2}$ per cent Liberty bonds. Then comes the 4's, which are taxable, and after them the bonds of states and the larger cities and counties, rated at an income basis of from $4\frac{1}{4}$ to 5 per cent. Corporation issues, real estate mortgages, stocks, etc., then follow.

It is quite clear to anyone who has followed the matter closely that the government, during the balance of the war period at least, does not intend to issue bonds entirely tax-free. And it is probable that future issues will carry a less valuable tax-exemption privilege than that which attaches even to the present offering of 4's. It follows that the interest rate of future issues must be higher to attract investors.

It is also quite clear that a burdensome tax must be paid each year from the income received from taxable investments; or, in other words, bonds exempt from the income tax will have an important added value on this account for years to come.

And again, it may be assumed that as long as the country continues at war, the output of all new bonds, except war loans, must be steadily decreased.

Keeping in mind the fact that state and

municipal bonds are practically the only tax-free bonds available, with the exception of two billions of Liberty $3\frac{1}{2}$'s, the conclusion that these tax-exempt issues will hold to their present price level in relation to the Liberty $3\frac{1}{2}$'s, and even appreciate in market value, regardless of further government financing in the form of taxable bonds, is not unreasonable.

Tax-exempt government bonds, the Liberty $3\frac{1}{2}$'s, are on a $3\frac{1}{2}$ per cent income basis. The best municipals are now quoted at prices to yield $4\frac{1}{2}$ per cent and bond men are now buying bonds of some of the best cities in the country at prices yielding up to 5 per cent. These bonds are far out of line, as compared with values before we entered the war. As proof of the derangement of values, note the relative position of New York City issues and bonds of such places as Cincinnati, Cleveland, Milwaukee, Kansas City and Minneapolis. Ordinarily New York Citys are worth a $4\frac{1}{2}$ per cent basis when the others net 4 per cent and less. Today, with all municipals down to the low level of 1913, the situation is reversed and New York Citys bring a much better price than any of the issues named.

There is evidence of a stronger tone in the municipal market. Dealers here and there have recently marked up prices and raised their bids just a little for new issues. During the balance of the month, it will be interesting to watch the trend in municipals, as expressed by the bidding for a few attractive issues scheduled to be sold.

APPLIED FOR EXEMPTION

An Italian, having applied for citizenship, was being examined in naturalization court.

"Who is the President of the United States?"

"Mr. Wils."

"Who is the Vice-President?"

"Mr. Marsh."

"If the President should die, who then would be President?"

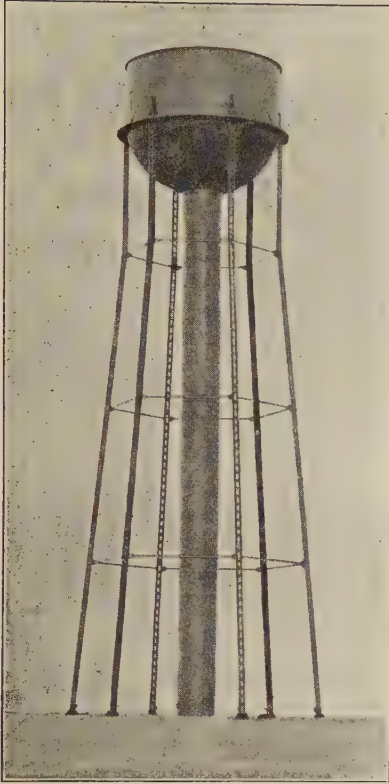
"Mr. Marsh."

"Could you be President?"

"No."

"Why?"

"Mister, you 'scuse, please, I vera busy worka da mine."



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American Municipalities

December, 1917

Vol. 34, No. 3

Entered as second class matter December 1, 1911 at the Postoffice at
Marshalltown, Iowa, under the Act of March 3, 1879.

Published by
Municipal Publishing Company
Marshalltown, Iowa

Frank G. Pierce, Editor

Subscription Price, - - - \$1.00 per year

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Resolution Adopted by League of Iowa Municipalities

That without evasion or reservation, we do promise that our every word, act and deed shall be in support of our President, our Governor, our Sons and Brothers,—the Sons of the Republic—and their Allies across the sea who are fighting the battle of liberty and freedom, the battle of the weak against the strong, of right against wrong.

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COMMENT

This issue of American Municipalities should be carefully read by every municipal official.

In the first place the minutes of the Iowa City convention are published and every official, not at that meeting, should read them so as to know just what took place.

Then the report of the Question Box Committee gives much valuable information and it will pay you to read this over not once but several times.

The report of the Committee on Public Utilities by Mayor Ford, is worthy of the careful consideration of every official.

The report of the coal investigation by Governor Harding and a committee of the League of Iowa Municipalities, should be read and carefully considered by all as this gives a number of interesting facts in regard to the coal situation.

Municipal officials and especially the mayors should keep careful check on the coal situation in their municipalities until they are sure that every one has enough coal to keep them warm.

The chances are that it will be almost impossible to get enough hard coal and Virginia and Kentucky coals to supply those who have been in the habit of using these grades but who have not as yet laid in a supply.

At this time it is not advisable to allow the use of cars for hawling coal and like commodities long distances as every car is needed and should be used where it will give the most service and this is in short hawls.

People who do not now have the hard or other eastern coal that they usually use should be advised to lay in a supply of Illinois or Iowa coal if it can be secured.

The mayor especially in the small towns should investigate the coal situation at least once each week and if there is actual need of coal to keep the people warm he should in co-operation with the local dealer take the question of a supply up with Hon. Charles Webster, fuel administrator, Des Moines, Iowa.

A few of the members have not as yet sent in their dues for the current year and they should do this at once as the League will need considerable money in the next few months to carry out the work outlined by President Potter.

SMOKES FOR SOLDIERS

When some ladylike man or some thin blooded woman finds fault with the movement to send tobacco to our soldiers at the front, just read to them what one woman who knows what she is talking about, Grace Ellery Channing, writes in the Saturday Evening Post.

"A world in which everyone is not smoking has ceased to be imaginable. If there is anyone who is not, be sure it is merely to save a cigarette for some poilu. Smoking, once a calender crime for some of us, has lost all meaning—all relation. A sane world may possibly recover a viewpoint about this habit; at present the reprobate cigarette appears as a good angel—the minimizer of suffering, the giver of a moment's pleasure where one longs to give all. How many billions have gone up in smoke, I wonder? Wasted? Not unless it is waste to keep up the nerve and the spirits of men called upon to do the work of supermen; not unless all is wasted that is not eaten or worn; not unless the impalpable treasure of memory is wasted. Women who have spent their lives in fighting 'the tobacco evil' may be heard to-day begging tobacco from anybody; they would steal it at need, to put it into mutilated or pain-racked hands of these far brothers—with all the glowing consciousness of a virtuous action performed. I remember when I used to rank cigarettes with homicide rather than suicide. But then, nothing seems to hurt the soldier—nothing but bona fide wounds'".

After you have read this a time or two, do your bit and give a dollar for Smokes for Soldiers.

TELL THESE FACTS TO THE BOYS

In an article on "The Soldier's Occupational Hazard" in "The Economic World" by Miles Meander Davis, Consulting Actuary, New York, Mr. Davis says that Victor Emanuel, King of Italy stated that he regarded his danger of assassination as only "a fair occupational hazard". Mr. Davis is looking at the soldier from the point of view of the Insurance Companies. He says "the extra risk has not been so very heavy in this war. The means of destruction are tremendous, but the means of protection are also tremendous. The Prudential, of London, with more than a third of all the men, women and children of Great Britain insured by it, has cov-

ered 2,000,000, in round numbers of those who entered the British service during the war—so it is reported—and has lost about 90,000 of them by death from all causes. Some have been in the service three years, others but a few weeks or months—say, a year and a half, on the average. This is a total death rate of 45 per 1,000, or, say, 30 per 1,000 per annum. The regular, ordinary death rate among these industrial policyholders was at least 10 per 1,000 per annum; and, on this basis, the extra hazard was 20 per 1,000, or one person out of 50—ONLY TWICE AS GREAT AS THE ORDINARY HAZARD ON THE SAME LIVES, certainly not too alarming. This may not be entirely accurate, but that it is not far from it is shown by the fact that many American companies have offered to count this extra hazard for only \$37.50 per 1,000, and besides to account for all that this amount exceeds the cost,—that is, to take the chances of losing by \$37.20 not being enough, yet to undertake to give back the margin if it is too much, a sure sign that they must be very sure that it is enough."

Make it plain to all that a soldier has 49 chances out of 50 of being on the firing line a whole year without being killed. This is information that municipal officials can pass along and do the soldiers and their relations the greatest good. Such information widely distributed will help win the war.

WAR LIMITS THE ESTABLISHMENT OF NEW INDUSTRIES

The recommendation of the Council of National Defense that no industrial enterprise should be undertaken at this time which will not help win the war will be of far reaching effect to business men, according to a bulletin issued by the committee of the Chamber of Commerce of the United States co-operating with the Council of National Defense. The committee declares every man who wants to see the United States victorious has now this recommendation as an acid test to apply to any new enterprise or undertaking.

LOOKS FOR MORE SWEEPING REGULATIONS

In fact this action, according to Waddill Catchings of New York, chairman of the committee, should prepare the minds of the business men for similar action in regard to the

full operation of those industries not essential to the national defense and to the consumption by the public of luxuries and non-essentials.

"In course of time," Mr. Catching went on, "no one need be surprised if during the war the use of labor and materials for all unessential purposes is made impossible by regulation or statute."

The following is the recommendation in full as made by the Council of National Defense:

CONSIDERATIONS FOR NEW INDUSTRIES

"Every effort that this country is capable of making should be applied to bring the war to a speedy and successful conclusion. The resources of the country in a general way may be said to consist of men, money and material, and during the period of the war any new enterprise or undertaking should be tried and justified by the test: Will the men, money and material so applied best contribute in this way to the winning of the war?"

"New enterprises which are not fundamental to the efficient operation of the country's necessary activities should not be undertaken. This will not result adversely upon business or conditions of employment because every man and every resource will be needed during the war. All effort should be centered to help win the war."

There is no ambiguity about this recommendation, according to the National Chamber committee. Men who are considering new enterprises, public improvements, dwellings, factories, in fact industrial work of every description, should be guided by the question of whether or not the undertaking is to be a factor in the victorious conclusion of the war. This is the concluding message to the commercial leaders of the country.

FLINIGAN'S FUNERAL

Flinigan was a prominent Irishmen in the community in which he lived. He was also a prominent member of his lodge and upon his death this lodge met in special session to arrange for plans to give Flinigan an elaborate funeral.

When the lodge was called to order the master of ceremonies arose and said, "Brothers, we have met to make plans to give our dear departed Brother Flinigan an elaborate funeral and I would

like to hear from some of the brothers what plans we should pursue."

Mike slowly rose and said, "Mr. President, I would suggest that we all meet in a body and that we go with our eyes cast to the ground out of respect to our dear departed Brother." Pat O'Tool seconded the motion with the following amendment saying, "I would like to make it that we all go with our eyes cast to the ground and the first man what looks up will be fined \$5.00." This motion was adopted and the lodge adjourned to meet at the home of Flinigan the next day.

At the hour appointed for the funeral the lodge was on hand with Pat at the head of the procession. They fell in behind the hearse and the procession slowly started down the street. Every Irishman had his eyes on the ground and after they had marched a short distance one Irishman said, "Pat whut the divil is it a stinkin'." Pat says, "Divil a bit do I know". Another Irishman said, "Pat, look up and see what it is a stinkin'." Says Pat, "Divil a bit will I look up and lose me \$5.00. Another Irishman said, "Pat for the love of Mike look up and see if you can locate the stink and we'll all chip in and pay your fine."

Pat slowly raised his head and said, "Boys, you can ivery one of yees look up, the hearse has gone up first avenue and we are following a schavanger wagon up third street.

R. V. W.

MUNICIPAL BONDS

The market for municipals in New England is typical of the entire country and according to the Bond Buyer the present price of municipals is lower than for many years past. In speaking of New England, the Bond Buyer says:

"About ten months ago, such cities as Melrose, New Bedford and Waltham were making temporary loans at 3% and borrowing for long terms at 3.60%. On January 26th of this year, Worcester, which has just succeeded in selling 4½'s at par, after a struggle, actually sold 3½'s at a premium.

Current quotations for such securities are unheard of.

From the above it would seem that now is a poor time to issue any bonds unless it is absolutely necessary.

COMMITTEES OF LEAGUE OF IOWA MUNICIPALITIES

President Potter of the League of Iowa Municipalities, appoints committees for the coming year.

DEFENSE AND PUBLIC WELFARE

Mayor Ed. S. Lofton, Keokuk; Mayor R. S. McNutt, Muscatine; Mayor C. E. Purdy, Independence; Mayor E. J. Hook, Decorah; Mayor C. B. Stiger, Toledo; Mayor John MacVicar, Des Moines; Mayor P. H. Cragan, Colfax; Mayor D. Davenport, Creston; Mayor M. B. Snyder, Council Bluffs; Mayor Mack J. Groves, Estherville; Mayor R. J. Andrews, Sioux City, Ghairman.

STATE LEGISLATION

City Attorney Ben P. Poor, Burlington; City Clerk Adrian Cross, Perry; Councilman G. E. Ward, Sioux City; City Attorney Fred Townsend, Albia; Mayor John Berwald, Davenport; Mayor D. C. Baker, Boone; City Attorney H. A. Willoughby, Grundy Center; Mayor J. L. Coon, Newton; Mayor G. T. McCrillis, Hampton.

MUNICIPAL HOME RULE

Mayor James Saul, Dubuque; Mayor O. K. Mauk, Washington; Mayor P. Hixon, Tama; City Clerk C. M. Conway, Shenandoah; Mayor J. E. Wilson, Winterset.

PUBLIC UTILITIES

Mayor J. F. Ford, Fort Dodge; City Attorney R. W. Byers, Des Moines; Frank G. Pierce, Marshalltown; Mayor F. E. Blackstone, Garner; Mayor Ed Farrel, Manning.

MUNICIPAL FRANCHISES

Mayor W. C. Edson, Storm Lake; Mayor Charles Emmerling, Gladbrook; Councilman S. A. Holcomb, Milford.

STREET PAVING

Mayor H. C. Hansen, Clinton; Manager T. A. Wilson, Clarinda; City Attorney C. M. Parker, Cedar Falls.

LIGHT AND POWER

Mayor W. C. Henke, Charles City; Mayor E. E. Bender, Spencer; Mayor W. M. Rider, Garwin.

SEWERAGE AND SANITATION

Mayor G. E. Baker, Ames; Mayor J. L. Hendershott, Marengo; Mayor R. H. Munro, Fairfield.

WATERWORKS AND SUPPLY

Councilman G. O. Gould, Mason City; Mayor J. N. McNeil, Sanborn; Councilman J. I. Bell, Marshalltown.

TAXATION AND ASSESSMENT

Councilman J. K. Baker, Eagle Grove; Councilman J. H. Strobel, Dubuque; Councilman Robert Ely, Mt. Pleasant.

JUDICIAL DECISIONS

City Attorney G. J. Tomlinson, Cherokee; City Attorney J. F. Scarborough, Bloomfield; City Attorney C. D. Jory, Sheldon.

MUNICIPAL ACCOUNTING

Clerk S. W. Crowell, Algona; Clerk T. S. Garlin, Oskaloosa; Clerk C. F. Bigelow, Alden.

DEPARTMENT CHAIRMEN

Cities Under General Law—Mayor W. C. Mordan,

Maquoketa; Cities Under Commission Plan—Councilman S. S. Manefee, Ottumwa; Cities Under Manager Plan—Manager J. O. Gregg, Iowa Falls; Towns—Mayor Henry Polders, West Liberty; Attorneys—City Attorney Henry Peterson, Council Bluffs; Accounting Officers—City Clerk C. D. Shippy, Oelwein; Engineers—City Engineer J. Q. Wickham, Ames; Water and Light Commissions—Superintendent B. F. Stedman, Dubuque.

PHYSICAL CONNECTIONS BETWEEN TELEPHONE SYSTEMS

The Wisconsin act providing for physical connection between competing telephone companies (Laws 1911, c. 546, §§ 1, 2) has been construed and upheld by the Supreme Court of that state in the case of Wisconsin Telephone Company v. Railroad Commission of Wisconsin, 156 Northwestern Reporter, 614. The statute directs such physical connection whenever public convenience and necessity require, "and will not result in irreparable injury to the owners or others." The Railroad Commission, upon proper application, is given power to decide the question of necessity and to prescribe reasonable regulations.

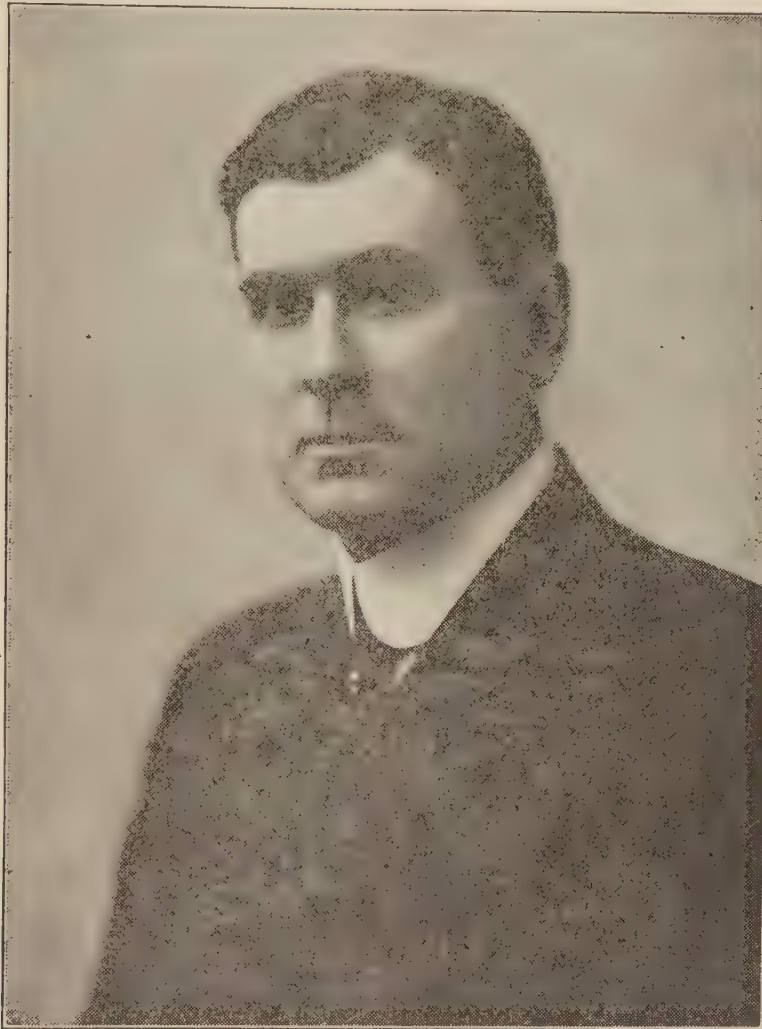
Judge Barnes, who delivered the opinion for the Wisconsin Supreme Court, discusses at length the meanings of the terms "convenience," "necessity" and "irreparable injury," and formulates definitions.

The case is the outcome of an order of the Commission requiring physical connection between the lines of the Wisconsin Telephone Company and the LaCrosse Telephone Company. Plaintiff's contentions were, in part, that its local exchange would be practically destroyed, its toll business diverted to the LaCrosse Company, and that the statute violated its constitutional right, by depriving it of property without due process of law, and without compensation, and denied to it the equal protection of the laws.

The opinion reads in part: "We construe the statute as not authorizing physical connection if it would deprive the plaintiff of the beneficial use of its local exchange. If the facts found are correct, no such result will follow, and we cannot say that the findings of the fact are not correct. This eliminates the contention of the plaintiff that is most forcefully urged. * * * We do not think that the order resulted in any taking of the plaintiff's property; but, if there is a taking, it has not resulted in substantial damage or irreparable injury, and is one which the legislature had a right to provide for."

Truman A. Potter

Mayor of Mason City and President of the League of Iowa Municipalities



PRESIDENT SENDS MESSAGE TO MEMBERS

Just now a larger membership in the League of Iowa Municipalities is highly important.

The executive officers have recently created a new committee of Defense and Public Welfare. This committee will deal with all activities of the federal, state and city governments during the war, and their work, with that of the other committees, will be of inestimable value to all of the members of the League.

American Municipalities, a monthly magazine, that is mailed free to every official of the membership municipalities, is of the greatest help to everyone who wishes to give the best possible service.

The work of the League during the coming year will be greater and more valuable than ever before.

Therefore, I urge that the cities and towns that are now members, try and secure memberships from the other municipalities throughout the state that are not members. No municipality in Iowa should be without a membership in this League. The cost is small and the benefits derived are many.

Twentieth Annual Convention

Minutes of the Convention of the League of Iowa Municipalities

The twentieth convention of the League of Iowa Municipalities was called to order by the president, Hon. J. D. Glasgow of Washington, in the assembly room of the Liberal Arts Building, State University of Iowa, at Iowa City at 10:00 A. M., Tuesday, September 18, 1917.

The delegates were welcomed to Iowa City by Mayor F. K. Stebbins on behalf of the city and commercial club, and by President Walter A. Jessup, president of the State University of Iowa on behalf of the university.

Hon. J. D. Glasgow responded to the addresses of welcome and delivered his annual address which was a review of his many years connection with the League.

Frank G. Pierce of Marshalltown, the secretary-treasurer of the League, presented his annual report, including a financial statement of the League and of the special legislative fund.

Mayor W. R. Law of Waterloo, presented the report of the Legislative Committee.

Hon. Guy J. Tomlinson, city attorney of Cherokee, presented the report of the committee on Judicial Decisions.

President Glasgow announced that he would name the committees at the afternoon meeting.

There being no further business at the morning session, the meeting adjourned to meet at 1:00 P. M.

The afternoon meeting was called to order by Mayor Glasgow at 1:30 P. M.

President Glasgow appointed the following committees:

Resolutions—Mayor R. J. Andrews, Sioux City; Mayor P. H. Cragan, Colfax; Mayor Ed Farrell, Manning.

Question Box—City Attorney Ben P. Poor, of Burlington and all other attorneys.

Auditing—Auditor R. L. Degon, Waterloo; City Clerk, Wm. Shardlow, Cherokee; City Clerk, Paul Coleson, Fairfield.

Road Protection Committee—City Attorney H. A. Willoughby, Grundy Center; Engineer

Wm. Schmidt, Council Bluffs; Industrial Engineer D. C. Faber, Ames.

City clerk T. J. Reeves of Hawarden, presented the report of the committee on Light and Power.

Mayor J. F. Ford of Fort Dodge, presented the report of the committee on Public Utilities.

Mayor R. J. Andrews of Sioux City, presented the report of the committee on Municipal Franchises.

These different reports were discussed generally by the different delegates until 4:30 when the meeting adjourned until 8:00 P. M.

Many of the delegates spent the rest of the afternoon inspecting the university.

The evening meeting was called to order by President Glasgow at 8:00 P. M.

Professor Arthur H. Ford presented a paper on Service Requirements of Public Utility Franchises.

Professor Bohumil Shimek presented a paper on Trees for Streets and Parks.

Mr. O. E. Klingaman, the director of the Extension Division of the State University, then conducted a Round Table in which a number of the professors of the state university took part. The meeting then adjourned to meet at 1:00 P. M., Wednesday afternoon.

At 9:00 A. M. Wednesday morning, the different departments held their meetings as arranged.

The general meeting was called to order at 1:00 P. M. with Mayor M. B. Snyder of Council Bluffs in the chair. This meeting was a joint meeting of the League of Iowa Municipalities and the Health Officers Association of the state.

Dr. W. D. Evans, health editor of the Chicago Tribune, addressed the delegates on the subject, Preventive Medicine. This address was thoroughly enjoyed by all present.

Dean Dudley O. McGovney of the College of Law, presented a paper on the subject, Legal

Aspects of Health Administration.

Mr. M. G. Lloyd, engineer of the Bureau of Standards, Washington, D. C., presented a paper on the subject, Bureau of Standards and its Relation to the Municipality.

The meeting adjourned at 4:00 P. M. for a trip of inspection of the State University and an automobile ride about the city.

At 7:00 P. M. a banquet was tendered the delegates by the commercial club of Iowa City in their new club rooms. After a fine banquet, Mr. C. F. Huebner, president of the Iowa City commercial club, announced several speeches including Mr. Ralph Oto, professor of law, State University of Iowa; Walter A. Jessup, president State University of Iowa; and Hon. J. D. Glasgow, president of the League of Iowa Municipalities. The banquet was cut short in order that the delegates might attend a lecture by Dr. Joseph F. Newton who had just recently returned from the front in Europe.

The general meeting was called to order at 9:30 o'clock, Thursday morning by President J. D. Glasgow.

At 10:00 o'clock the special order of business was called. The first business was the election of officers which resulted as follows:

President—Mayor T. A. Potter of Mason City.

Vice President—Mayor W. R. Law of Waterloo.

Secretary-Treasurer—Frank G. Pierce, Marshalltown.

TRUSTEES

Mayor J. F. Ford of Fort Dodge.

Mayor F. K. Stebbins of Iowa City.

Mayor M. B. Snyder of Council Bluffs.

Ames was nominated as the place for holding the next annual convention. Hon. S. S. Nenefee of Ottumwa, presented the claims of Ottumwa for the next meeting and the following letter from the commercial club:

The League of Iowa Municipalities,
Gentlemen:

The Ottumwa commercial club desires to join with its city officials in extending you a hearty invitation to meet in Ottumwa for the 1918 convention. A resolution to this effect was passed unanimously by the Board of Directors this afternoon.

With the aid of the city officials, I am sure

that Ottumwa will be glad to do its very best to make the convention a success in every way. The hotel facilities are now ample and excellent. Ottumwa is exceptionally well located as to transportation facilities and the community has never had the honor of entertaining the annual convention of your organization.

Again assuring you of our appreciation for your consideration of this city's invitation, I beg to remain,

Very truly yours,

M. L. Toulme, Secretary.

On the ballot, Ames was elected as the place of the next annual meeting.

Mayor Ford, chairman of the trustees, presented the following report and resolution and moved the adoption of the resolution.

To the League of Iowa Municipalities,

Your trustees beg leave to report that they have carefully gone over the finances of the League for the past few years and the outlook for the future, and on account of the League being in position to increase the pay of our secretary and in view of the fact that our secretary is entitled to a just compensation for his services, we recommend that the salary of the secretary be fixed at one hundred and fifty dollars a month and in order to take this action offer the following resolution:

Be it Resolved by the League of Iowa Municipalities

That the salary of the secretary be fixed at one hundred and fifty dollars a month on conditions that all other obligations of the League are first paid.

After further remarks by a number of delegates, the resolution was unanimously adopted.

The different departments made their reports by their different chairmen.

The Auditing Committee reported as follows: To the President and Members of the League of Iowa Municipalities,

We, the undersigned, appointed your audit ing committee, beg to report we have examined and audited the receipts, vouchers and records of your secretary and treasurer, Mr. Frank G. Pierce, and submit the following report:

GENERAL FUND

RECEIPTS

Interest on deposit.....	\$ 15.00
Cash on hand, beginning of year.....	212.66

Received from dues.....	4,832.50
Received from special legislative fund.....	25.63
Total.....	\$5,095.79

DISBURSEMENTS

Printing and postage.....	\$2,744.18
Salary of secretary (13 months).....	1,300.00
Special legislative fund.....	250.00
Dubuque convention.....	170.00
Executive council suit.....	350.00
Legislative committee.....	84.50
Miscellaneous meetings.....	60.76
Des Moines meeting.....	37.25
Ames meeting.....	27.71
Telegraph and telephone.....	13.92
Telephone Meeting, Marshalltown.....	27.21
Oskaloosa meeting.....	6.82
Cash on hand, close of year.....	22.83
Total.....	\$5,095.79

The records of the secretary and treasurer as to the receipts and disbursements of the "Special Legislative Fund" show as follows: Eighty cities and towns contributed to the fund.

The receipts were:

Contributions from cities and towns.....	\$603.00
Donation.....	5.00
From League of Iowa Municipalities.....	250.00
Total.....	\$858.00

The disbursements were:

To legislative committee attorney.....	\$832.37
Returned to League treasury.....	25.63
Total.....	\$858.00

Statement of First National Bank of Marshalltown showing cash balance at close of year as indicated in the secretary's report is attached hereto and made a part of this report.

In conclusion your committee desires to express its appreciation of the courtesies extended by the secretary and treasurer of the League in its investigations and the making of this report and to commend the secretary of the League as an efficient, earnest and hard working official. All of which is respectfully submitted.

We recommend that the secretary publish in the League journal the statement of the special legislative fund as shown and reported to this League in the secretary's report.

R. L. Degon,
Wm. Shardlow,
Paul Coleson,
Geo. Gallarno,
Committee.

The Question Box committee presented its report. (See page 78).

The Resolution committee reported as follows:

WE, THE COMMITTEE ON RESOLUTIONS, BEG TO OFFER THE FOLLOWING:

Be it Resolved by the delegates in attendance at the twentieth annual convention of the League of Iowa Municipalities:

That we extend our thanks to President J. D. Glasgow and to T. A. Potter, vice president, and Frank G. Pierce, secretary and treasurer, and to Messrs. Ford, Law and Koontz, our trustees, as a slight expression of our appreciation of their untiring and unselfish efforts in behalf of this League.

And to the city officials and commercial club of Iowa City for their hospitality and the opportunity to see another one of the fine little cities of our state.

That we highly appreciate the opportunity of holding our convention in the University buildings and of listening to the papers and addresses of the faculty and others who assisted in our program.

That we feel deeply humiliated by the absence of the representatives of two or three of our chief cities, and wish to apologize to our hosts for this lack of opportunity to renew acquaintance with them and see their actions in convention in some other city than their own.

And, whereas, it has become necessary for our country to defend its right to sail the seas without taking orders as to route and ship ornaments and decorations;

And, whereas, our congress has declared war for the protection and preservation of these and other rights, therefore be it

Resolved, that without evasion or reservation, we do promise that our every word, act and deed shall be in support of our President, our Governor, our Sons and Brothers,—the Sons of this Republic—and their Allies across the sea who are fighting the battle of liberty and freedom, the battle of the weak against the strong, of right against wrong.

R. J. Andrews,
P. H. Cragan,
Ed. Farrell.

After a general discussion of the questions
(Continued on page 81)

Report Cities Under General Laws

Chairman—P. H. Cragan, Colfax, Iowa.

Secretary—Ralph Graham, Davenport, Iowa.

Meeting called to order by chairman.

Secretary made a few preliminary remarks on building restrictions and zones.

It was brought out during the discussion that it is becoming necessary to compel people building various types of buildings to conform to the building line of houses already erected within said block. The idea being to stop erection of stores, etc., up to the property line and thus block views in residential district.

A motion by Graham that the matter of building lines and zones be referred to the legislative committee. Carries.

W. Waddell put the following question:

A sidewalk was laid to an old stake 8, a new survey made, showed the old stake to be 6 out of line, who was to blame and which line should be followed?

Answer—By Crowley of Davenport:

The assumption would be that the old line was wrong and the new line of recent survey should be accepted.

Lindholm of Davenport, made motion that the construction of business houses in residential sections be referred to the legislative committee for action. Motion carried.

Johnson of Eagle Grove, puts the following question:

What authority has town council to regulate stables and stud barns inside of city limits?

Answer—By Lindholm of Davenport:

The city can abate same on the grounds of a public nuisance.

Motion of Lindholm of Davenport, that the matter of stables, air domes and sanitariums be referred to legislative committee for action. Carried.

Fire Chief Denger of Davenport, urged that the fire insurance companies be assessed a tax for pension fund for all cities in state.

Motion that same be referred to legislative committee for action. Carried.

Question—By Chatterton of Clinton.

How are other cities providing additional revenue since the saloon tax was lost?

Answered by Lindholm of Davenport—By readjustment of licenses and increase of tax levy

Answered also by Chatterton of Clinton—We transferred from one fund to the other.

Chatterton of Clinton, proposed that for first class cities the tax levy for general fund be increased from 10 mills to 15 mills, and amended by Baker of Eagle Grove, that second class cities be included.

Motion by Chatterton of Clinton, and amended by Baker of Eagle Grove, that second class cities be included, that same be referred to legislative committee for action. Carried.

During the discussion it was brought out that increased revenue depended a great deal on the assessor and that property values in various cities should be assessed along some standard lines. For example, one town of 5000 population has a property on a business corner and it is assessed for \$10,000, while in another town of same size and like conditions a corner is assessed for \$20,000.

Crowley asked following question:

What increase is found in cost of contract work and improvements?

Davenport work has increased from 20 to 30 per cent and next year improvements must be curtailed.

Clinton has done 80 per cent less than usual.

Sheldon did more than last year, but next year will do less.

Question—By Boniger of Bettendorf:

Has city council the right to make improvements when a majority of property owners protest same?

Answer—Yes, by a three-fourths vote of council.

Mayor Hansen of Clinton, asked the following question:

What success have other cities had in condemning old buildings?

Answer—By Gosch of Davenport:

Davenport in last two years has condemned

(Continued on page 88)

Report Question Box Committee

Twentieth Annual Convention, League of Iowa Municipalities

Your department meeting of attorneys appointed for the purpose of reporting on questions submitted to the department, and questions raised by the members of the department, would respectfully report as follows:

I

Question: Do cities and towns, in an ordinance covering the subject, have the right to regulate the width of the tires of vehicles in proper relation and comparison to the weight of the vehicles and its load?

Answer: Section 754 of the Code provides in part as follows: " * * * to prescribe the width of the tires of all vehicles habitually used in the transportation of persons or articles from one part of the city to another * * * "

There is no question but what under this authority granted to the cities and towns, a reasonable regulation of width of tires in proper comparison and relation to the weight of vehicle and load, would be upheld by the courts. Such regulation has, under the statute, been left to the cities.

II

Question: Do cities and towns have the right to pass ordinance regulating the passage over pavement of extraordinary heavy machinery with lugs or spurs on the wheels, same causing damages by such lugs or spurs?

Answer: Section 753 of the Code gives cities and towns general supervision of streets, in following language: "They shall have the care, supervision and control of all public highways, streets, avenues, alleys, public squares and commons within the city and shall cause the same to be kept open and in repair and free from nuisances."

There is no specific statute granting to cities and towns the power of regulating lugs or spurs on the wheels of heavy machinery. However, in view of the consequent damage and ruin that will almost invariably result from extremely heavy machinery with lugs or spurs passing over such paving as asphalt or concrete, etc., it is our

opinion that under the general power of the above section and the general police power of cities and towns, the courts will uphold a reasonable regulatory ordinance along this line. Such an ordinance should be fortified by permitting planking. We are encouraged in believing that the court will uphold reasonable provisions along this and similar lines through its broad interpretation of a city's power over its streets in the case of *Pugh vs. Des Moines*, 156 Northwestern, 892.

III

Question: In regular municipal elections, also special municipal elections, should one of the poll books be returned to the county auditor, or both books returned to the city or town clerk?

Answer:—One shall be returned to the county auditor. Section 1145 of the Code reads in part as follows: "One poll book containing such return, with the register of election attached hereto, shall be delivered by one of the judges of election within two days to the county auditor * * * "

In case of *Jackman vs. Board*, 156 Iowa, 620, the supreme court said: " * * * two such books shall be made and certified, and, in the case of a city election one of such books must within two days be delivered by one of the judges to the county auditor and the other shall be delivered by one of the judges to the city clerk."

The procedure with reference to special city elections on this point would be the same as procedure covering general elections.

IV

Question: Where water collects on railroad right of way in ditches or on account of low land can city or town compel railroad to care for same?

Answer: Yes, we believe it can, provided the condition is such as to come under the decisions referred to hereafter and under section 698 which is as follows: "They shall have power to cause any lot of land within their limits, on which water at any time becomes stagnant, to be filled up or drained in such manner and within

such time as may be directed by resolution of the council * * * ”.

The section then provides for notice on the owner by service or publication and if the nuisance is not abated then the city or town may do so and charge the expense to the owner in the same manner as provided in case of special assessments. This would, therefore, give the power to charge it against railroads also in same manner as special assessments.

Under the decision in case of *Buel vs. Paul* 20th Iowa, 282, the words “lot of land” are given a broad interpretation and includes all general parcels of land having stagnant water upon them. Under the decision in *Bush vs. Dubuque* 69, Iowa, 236, the authority of the city only reaches, however, to the ordering of such drainage and such filling as to obviate the nuisance occasioned by the standing of stagnant water, and in the case of *Aldrich vs. Paine*, 106 Iowa, 465, it was held that the authority related to water standing in depressions or pools, and not to large areas of low, wet or swampy land which absorbs the water and on which it seldom stands, and never becomes stagnant.

V

Question: Where water drains out or toward a railroad track or right of way, can town compel railroad to construct drain under track?

Answer: Yes, the city or town would have such power under section 699 of the Code, which provides that when by a grade or fill a water course is obstructed, the city shall have the right to order it dug out, and if on notice the same as in section 698, same is not done, the work may be done by the city or town, and assessment made as in cases of special assessment. The provision for making special assessments against right-of-ways of railroads would also cover in such cases.

VI

Question: Has a city of the second class, through its council, the right to pass an ordinance providing for the payment of a salary to the mayor?

Answer: Yes, the council may provide for same by ordinance under the provisions of section 676 of the Code, which is as follows: “All officers elected or appointed in any city or town whose compensation is not fixed by law, shall receive such salary, compensation or fees for

their services as the council may by ordinance, from time to time prescribe.”

VII

Question: What are cities and towns doing generally as to paying the claims of the Cameron Septic Tank people, for alleged violations of its patents?

Answer: Denying the claims and resisting them in all cases. Secretary Pierce of the League is secretary of a national association organized to contest these claims.

VIII

Question: Must the proceedings of the town council be posted up after each meeting according to the new law in effect after July 1, 1917.

Answer: The law in regard to publication of proceedings of the council is found in sections 687-a Code Supplement, 1913 as amended by the 36th and 37th general assembly.

The 36th general assembly, struck out from section 687-a as published in the Supplement, the words, “when so ordered by said council” in the third line.

The 37th general assembly, chapter 157 further amended the section, by striking out the words “or be posted in one or more public places as directed by said council” in 6th and 7th lines and substituted the following, “provided however, that in cities and towns in which no newspaper is published such statement and list of claims shall be posted in at least three public places on the business streets of said city or town.”

Section 687-a as amended now reads as follows: “Immediately following a regular or special meeting of the city or town council, the clerk shall prepare a condensed statement of the proceedings of the said council, including the list of claims allowed, and from what funds appropriated and cause the same to be published in one or more newspapers of general circulation, published in said city or town, provided, however, that in cities and towns in which no newspaper is published, such statement and list of claims shall be posted in at least three public places on the business streets of said city or town.”

This is the law at present and is very plain as to the duty of publishing the proceedings where a paper is published in a town. The proceedings must be published in a paper, that is

(Continued on page 90)

The Coal Hearing

League Committee Acts with Governor Harding

President Potter in making up his committees for the coming year, decided to appoint a new committee to be known as the committee on Defense and Public Welfare, to be made up of one member from each congressional district.

That such a committee as this is needed at the present time, was demonstrated soon after its appointment.

Hon. Clifford Thorne who has been representing the League of Iowa Municipalities in Washington and before the different fuel administrators, reported to the secretary that in his judgment, it would be a good thing to have a meeting of some committee of the League, to which he could make a report of his work.

President Potter took the matter of such meeting up with Governor Harding and State Fuel Commissioner Chas. Webster, and it was decided to call a meeting of the Trustees of the League, and the committee on Defense and Public Welfare, at the governor's office in Des Moines, November 1. All of the members of the committee were present at this meeting with the exception of Mayor Groves of Estherville, who was unavoidably detained. In addition to the committee, President Potter, Vice President Law, Trustee Ford and Secretary Pierce were present.

President Potter called the meeting to order, and stated briefly the objects of the same, which were to hear the report of Mr. Thorne and take such other action as seems advisable. President Potter then called the chairman of the committee on Defense and Public Welfare, Mayor Andrews, to the chair.

On motion, it was ordered that Secretary Pierce of the League act as secretary of the committee.

Chairman Andrews called on Governor Harding, who briefly addressed the meeting in substance as follows:

"The coal question is the one big vital question that is confronting us at this time, and we are all interested in it, including the mayors

of the cities and towns of Iowa, who so directly represent the consumers. Private hearings, such as is the policy of the national government, are not in accord with the American plan of government.

"In my judgment, the price of coal in Iowa is too high, and some means should be devised to reduce it. There is certainly no need of a coal famine in Iowa this winter, as there is plenty of coal in the country, and with proper work and co-operation the coal can be gotten out and delivered to the consumers. We must see that all factories are kept going, in order that our laboring men may have employment. We must see that no man, woman or child in Iowa goes cold this winter for want of fuel. We have the coal and produce it, and it is up to the people to take such action, as will assure them an ample coal supply during the coming winter.

"It has been suggested that we have a public hearing, and I suggest that you men give this your consideration and whatever is done, I want you to know that you have my hearty support and help in any action you may take to settle this present difficulty."

Hon. Clifford Thorne then reported fully as to his work for the League on the coal matter, and also suggested that a public hearing would be of the greatest value. Remarks were also made by Mayor MacVicar of Des Moines and Hon. Charles Webster fuel administrator.

It was moved by Mayor Law that the governor be asked to make an investigation along the line outlined in the discussion and that a public hearing be held at which all interested would have an opportunity to present their views. Mayor MacVicar seconded the motion which was unanimously carried.

Governor Harding announced that he would be glad to undertake the investigation, but asked that a committee of the League be appointed to co-operate with him in the investigation. It was moved by Mayor Law and seconded by Mayor MacVicar that a committee of three be appointed

by the chairman of the committee on Defense and Public Welfare to assist the governor in the investigation and public hearing. This motion was carried unanimously. Chairman Andrews appointed Mayor John MacVicar of Des Moines, Mayor M. B. Snyder of Council Bluffs, and Mayor R. S. McNutt of Muscatine as this committee.

The sub-committee in conference with Governor Harding, decided that a public hearing would be held on Thursday, November 22, and blanks were mailed to the coal producers, retail dealers, railroads and others and all were invited to appear and make a showing.

The committee met on November 22 and 23 and again on November 27.

The railroads and retailers made full reports and the producers, representing over ten per cent of the production, also reported as to costs of producing coal.

After consideration the committee sent a telegram to President Wilson and for the time being the matter now rests with the president.

The telegram sent the president is as follows:

"Public hearing on the coal situation in Iowa has been conducted before the governor and three mayors representing the League of Iowa Municipalities.

"The investigation covered cost of producing coal at the mouth of the mine, the amount of coal in the state, and distribution.

"Coal operators, miners, small and large users of coal, railroads and retailers were invited to appear and present their views and such facts and information as they had, and all responded except a few coal operators, who banded together, refusing to give information. Evidence, however, was produced by large and small operators, representative of the state.

"The hearing lasted four days. Every phase of the subject was covered, and information formerly secured was also made a part of the record in the case. All of this information is in shorthand and will be furnished to you and the federal trade commission, if desired.

COST AT THE MINE

From the information before us, we find that the extreme cost of production at the mouth of the mine is \$2.25 per ton at the present time, mine run. Operators appearing before us testified to costs at the present time ranging from

\$1.90 to \$2.25 per ton. This includes labor, supplies, depreciation, and all other costs.

"The record also shows that under normal conditions operators have been satisfied with a profit over cost of production at mouth of the mine of from 10 to 12½ cents per ton; whereas, the present maximum fixed price does now permit of profits aggregating more than 100 per cent on the investment in these properties. This was conceded of record by actual operators, under oath, on the witness stand.

"In view of the above finding of facts and the intense public interest and feeling aroused because of the great increase in the price of coal since August 1, 1917, we recommend that the price of Iowa coal in the various districts be based upon the above information, and that the present excessive prices be reduced at the earliest possible moment.

"We find there is no substantial shortage of cars in the state, that the mines are operating to their full capacity so far as labor conditions will permit, and that labor is co-operating in every possible way.

"If this information is questioned from any source, we pray for an opportunity to hear and answer such objections."

W. L. Harding, Governor.

John MacVicar, Mayor of Des Moines.

N. B. Snyder, Mayor of Council Bluffs.

R. S. McNutt, Mayor of Muscatine.

Twentieth Annual Convention

(Continued from page 76)

that had come up for consideration at the League meeting and a short farewell address by Mayor Glasgow and words of appreciation by Mayor Potter and other members, the meeting was adjourned for one year.

Frank G. Pierce, secretary.

RECOMMENDATIONS OF THE DEPARTMENT UNDER COMMISSION GOVERNMENT

That the petition of recall be presented to the district judge with the same power as the city clerk now has.

That the term of city councils should lap over and not be all elected at one election.

That when there are four councilmen think it best to have them run for a certain department.

Report Committee on Public Utilities

Mayor John F. Ford, Fort Dodge, Chairman

If your committee on public utilities confine themselves to reporting one legislation enacted at the last session of the legislature there could be very little interest in our report. The efforts of the committee was very largely directed toward securing legislation that would place the regulation and control of telephone companies under some board or commission that would have a general or state-wide jurisdiction. The occasion or demand for a bill providing for general regulation or control of telephone companies at first thought might seem irregular or inclined to be class legislation but thoughtful examination of the subject with reference to telephone companies soon leads to a different opinion. The telephone company is largely an interurban utility, conditions existing in one community with reference to service are very often entirely different to what it is in other localities, for instance a line with its principle business or a greater part of its business in a city of the first class could hardly be expected to have its rates and regulations the same as they might be in a city of the second or third class and again there would be a change of condition in smaller towns and country service and at the present time the rural service is a very important factor in public service by telephone. You can readily see how impossible it would be for a city council, board of township trustees or county supervisors to lay down regulations that would be applicable to the operation of a telephone system furnishing both city and rural service, and yet a telephone system that did not furnish interurban would not, in these days, be considered sufficient or satisfactory.

The committee on public utilities therefore had at several times called meetings discussing first the needs of such a bill and later agreed upon what they considered the necessary provisions of the bill. At those meetings the committee called in expert telephone engineers and operators as well as, what they considered, the best legal counsel they could obtain in the state on this subject. The final draft of the bill was made by Attorney

H. W. Byers of Des Moines. The bill was read for the committee section by section and commented upon, the occasion for various provisions was fully explained, while we did not have all of the things we would like to have, your committee felt that we had a very good bill and on which, if enacted and put into operation, would result in general benefit to not only the cities and towns but to rural communities and telephone companies as well. Your committee felt that a separate bureau or board dealing with this subject alone would be more desirable than any other arrangement which might be made and although we were heartily in favor of that plan we realized that it was little use to undertake to have such a board or commission appointed or created as it was very evident that it was not the intention of the General Assembly to create any additional boards or commissions; it was therefore determined to ask that the telephone companies be put under the control of the railroad commissioners with all of the authority to act that is granted them now with reference to railroads. In addition to this, there were other specific provisions in the bill providing for hearings on the many different questions that might arise and delegating the power to the commission to adjudicate. In fact, the committee went as far as they could in providing for general regulation of telephone service and the cost of same, as well as providing for the adjustment of the many questions arising involving operation of the telephone system and while this particular bill did not provide for a separate bureau it was the thought of the committee that if the bill were passed to ask that a bureau be established as an adjunct to the railroad commissioners' office that would devote its time to gathering information and data dealing entirely with telephone service and necessary cost of furnishing the same as well as proper franchise provision. Personally and I believe I speak for the committee when I say that a bill referring the problems and questions arising in telephone service and regulation to the

railroad commission, as it now exists, would be of little use or service; this is not intended as reflection on the present railroad commission but the foundation for this belief is the fact that there are few men qualified to pass on the many intricate questions that arise and no one is qualified unless they have made a special study of the subject.

It does not seem necessary to go into detail with reference to this bill that has failed, however it might seem that we owed it to the League of Municipalities to give some report of our efforts and also to outline the things we had in mind. The representatives of the cities and the representatives of the telephone companies both agreed that they would offer no objection to the passage of the bill and also that they would urge their reasons for its passage. It might seem strange that with this arrangement that the bill would be defeated but there are always other interests that feel that there is opportunity for them to get under the same cover and there is also a general disposition for the people to oppose anything that might be termed "government regulation by a commission". Ordinarily we would agree that the people of a community have a perfect right to control utilities within the boundaries of their respective municipalities but where you have a utility operating sometimes in five hundred different municipalities it is difficult to see the force of their argument that each municipality can be advised or in a position to know how best to regulate the general operation of a utility. Regardless of whether they know best or not the fact remains that the different communities will not agree either to rates or provisions for regulation and control. For that reason, we felt justified in separating the telephone industry from the other public utilities. However, as soon as the bill appeared in the legislature, one of the representatives of other utilities who has always been very prominent and active in our legislature sessions, saw fit to point out that this was class legislation and that the telephone industry was selected as a privileged class and were receiving special privileges that were denied other utilities and although the companies which he represented might object to being placed under the same restriction and control that was provided for the telephone companies this representative succeeded in creating a prejudice against the

bill. The representative who was so active in this work is a representative of one of the largest corporations in the state furnishing electric energy both for lighting and power purposes, their high tension lines and power plants can be found in numerous cities in the south central and south eastern part of the state. Whether they felt that a like bill might be some time passed governing their operations or whether they preferred to have a general bill passed that would assume control of all public utilities and remove present authority, so far as could be, from the local municipalities, your committee was unable to learn. We do know, however, that they did wage a very successful contest against the passage of this bill with the result that the bill failed of passage by a very small margin.

While there were other bills presented that would effect municipal regulation of public utilities and other bills proposed that were not presented, there was no legislation at the last session of the legislature that made any material change either in the control or operation of any public utility in the state of Iowa.

Another subject that was before the committee at different times was the regulation and operation of what is termed as "high lines", or the power distributing cables that are being used around the state conveying electric energy, however, it is a matter that is of more particular interest to the rural communities and I might say to the telephone companies operating in the rural communities. Your committee did not take any active part in the proposed legislation governing the operation of such lines. Many communities do not feel the necessity of regulation and reasonable or proper control of the telephone companies but officers representing large cities realize that there is a problem there that must be solved sooner or later. I say that many communities do not realize this because in towns from one thousand to five thousand where a franchise rate is agreed upon and put into effect, the occasion may not arise for twenty years after for any change in the rate; therefore, they see no reason for disturbing the present regulation. In the larger cities where on account of the rapid growth of the city the company is called upon to furnish a much wider service and sometimes double the number of instruments in a term of five years, the condition is altogether different.

The rates must also change as it is generally conceded by everyone who has made a close study of the subject that with the increase of instruments there must be an increase in rates. How much that should be and under what conditions is one of the questions that is continually arising and will continue to arise until there is some board or court of last resort that can be gotten to promptly to pass upon this ever existing question of service and cost. Personally as chairman of the committee, I do not hesitate in saying that I think it is wise for the League of Municipalities to continue their efforts along this line until some board or commission is established such as was provided for in the bill before the 37th General Assembly. Many of the men who voted against this bill and were responsible for its failure voted in absolute good faith; they believed that it was class or special legislation. Although it is not difficult to convince anyone that the condition governing telephones and other utilities is entirely different if you can prevail upon them to listen to a reasonable argument on the subject, it is very difficult to remove an established prejudice after it has been firmly established as it was in this particular case.

In closing just a word on public utilities generally. There has never been a time in the history of our state when the public has taken the interest in public utilities that they are taking at present. I have answered more inquiries with reference to municipal ownership, municipal regulation and cost of service in the past six months than during any full year of my term of office. Many cities and towns have taken steps to acquire electric light plants either by purchase or by building a municipal plant. Why such an action should be taken at this particular time is somewhat difficult to understand. The material, labor and equipment entering into the construction of an electric light and power plant is at the very least calculation sixty per cent higher at this time than it was three years ago. I will venture the statement that a plant and distribution system that could be built and equipped in 1913 for \$100,000.00, could not be built today for \$160,000.00. The fuel for generating the power when a steam plant is contemplated is correspondingly higher. Conditions such as these do not offer very much encouragement for such expenditures or ventures at this time. If a

plant is acquired by purchase and the usual methods of inventory and appraisal are followed, you can readily see where a utility company is in a position to secure a very profitable bargain, the city therefore, must expect to be securing a doubtful bargain, at least they become purchasers at a time when the property they acquire is floated on the very crest of the wave of high prices, that is now at high tide all over our country. We should consider at this time that an indebtedness created for the purpose of acquiring a municipal light and power plant must necessarily be a much greater burden than it would be under normal conditions. If there is any suggestion or advice that might be offered at this time to cities and towns contemplating the acquiring of a public utility, it is that where a plant is now being operated they should acquire it and improve or extend the plant if the occasion demands it but avoid duplication as duplication means waste and this is the time for conservation rather than waste.

I do not wish to be understood as advising against municipal ownership for I am still a firm believer in municipal ownership of public utilities. What I desire to do is to warn municipal officers not to take hasty action under present conditions and offer the very pertinent suggestion or advice to "watch your step" at this particular time. I feel that we have been very fortunate so far, in as much as there has not been any special effort made to increase service rates following the great advance in material, labor and fuel, and cannot help but believe that the statements that I have so often made before this league that rates were entirely too high have been proven by the utility owners themselves, for I am quite certain that they are continuing to make a little money on their plants at the same or a lesser rate than was charged three and five years ago.

If the foregoing reasons are not sufficient to cause us to exercise a great deal of discretion before assuming any very large additional burdens for municipalities at this time, it seems there is another reason that should be considered. Our country and state at the present time is entering into a war which is already the greatest conflict ever waged in the world. Up to this time our part in it has only been preparatory but it has been demonstrated very clearly that it is going to

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Municipal Engineering Notes

By D. C. Faber, Industrial Engineer

STREET INTERSECTION SIGNS

The state law relative to the operation of motor cars provides that in cities and towns such vehicles shall travel on the right hand side of the street, as near the curb as the condition of the street will permit; that in turning to the right into another street, they shall turn the corner as near the right hand as possible; and in turning to the left hand into another street, they shall pass to the right and beyond the center of the intersection before turning. In a great many cities and towns, traffic posts or signs are placed at the center of street intersections for the purpose of enforcing the third provision, with reference to the cutting of corners.

The number of designs of such posts are almost as large as the number of cities using them. Some cities have erected monuments of concrete; or cast iron lamp posts; or sewer pipes filled with concrete; while others use portable signs of various types.

The question as to whether or not such signs are obstructions to the street, rendering the municipality liable in case of accident, has been raised frequently. The statutes provide that cities and towns shall have the care, supervision and control of the public highways and shall cause the same to be kept open and in repair and free from nuisances and obstructions. As a general rule, slight obstructions of the street for the sake of general convenience do not render a municipal corporation liable for a resulting injury; and where obstructions are placed in a street for purposes authorized by law, or where they are intended for the protection of the general traveling public, they do not in themselves constitute a nuisance, but all reasonable precautions must be taken to prevent injury by them. Where a street is opened for travel for its entire width, care must be exercised to maintain the whole width of it reasonably free from obstruction; and a municipality cannot say, after an injury is sustained in consequence of an obstruction in a portion of a

street, that part of such street was intended to be used and part was not. While the question is not free from doubt, it would seem that whether or not traffic posts or signs at the center of the street intersection are such obstructions as to render the municipality liable for injury caused by them, would be a question of fact to be determined by a jury in any particular case. Some of the facts which might have a bearing on such a case are: the width of the streets; whether or not the traffic signs were reasonably suitable for the purpose intended; the volume of traffic; and possibly others. In this connection, it is interesting to note, some attorneys hold that any fixed traffic post at the center of an intersection is a nuisance for which the municipality is responsible.

Regardless of questions of liability, most towns and cities at the present time are using intersection signs which are not permanently fixed in the roadway, and are of such construction that, if run into, they are tipped over without damage to the vehicle. Such signs prevent corner cutting just as effectively as heavy, permanent ones; they are of low cost; they can be removed from the street when desired; and, last but not least, there is small chance for serious accident in case they are driven into.

These standards are usually about 5 feet in height, and are made up so that the instructions: "Drive to the Right", or some similar phrase, is visible from any of the four directions of approach, making what are commonly called four-way signs. Such signs should be so constructed that they will not be damaged by being tipped over. If the signs are to be left in place at night, they should be fitted with lamps or lanterns, unless they are well lighted by near-by street lamps.

Traffic signs should be uniform in shape and size and should carry only such wording as is necessary to make the meaning plain. Although signs of various shapes are frequently seen, the general tendency at present is toward the use of

circular disks from 12 inches to 18 inches in diameter.

The effectiveness of a traffic sign depends largely upon the colors used. It is essential that the signs attract attention, and that strongly contrasting colors be used in order that the wording may be read easily.

On account of usually being associated with danger or warning signals, red is the most commonly used color in the make-up of traffic signs. The wording is commonly done in white or aluminum letters on a red background, because the light letters show up plainly on the darker background, and because on account of the predominance of red the sign is noticeable at a considerable distance. Black and white, black and aluminum, and blue and white combinations also are used. Signs made with these colors are easily read, but do not attract attention, especially from a distance, as quickly as do those of red.



At the left is shown a four-way intersection sign having the letters engraved or milled into the plates. The disks are made of 12 gauge rolled sheet iron, with a border pressed around the edge to stiffen the plate. The letters are cut into the plate with a milling cutter, after which the signs are galvanized and the enamel baked on, and the letters finished in aluminum. For this particular sign, the plates are built up in pairs, back to back, and riveted to a standard 2 inch pipe. By the use of dies, this pipe is flattened to a thickness of about 1/2 inch in directions at right angles to each other, forming two flat surfaces upon which the four signs may be riveted. The whole is topped with a cast iron ball which prevents rain or snow from entering the pipe. The base which is made of cast iron, is 18 inches in diameter. The

whole sign is 5 feet high and weighs 70 pounds, complete. The selling price is \$8.50.

These standards can be equipped with electric lights if desired, or with oil lanterns for use where electricity is not available.

On account of the depressed letters, the above signs are very easily repainted when necessary.

A sign having "drilled in" letters is shown on the right. The disks of the sign are made either of sheet iron or steel 1/8 inch thick and 14 inches in diameter. The letters are formed by shallow holes drilled into the sign, which are filled with a white composition in such a way that the letters are depressed below the surface of the plate. The disks are galvanized and painted, and the letters finished in aluminum. The fittings holding the disks are malleable castings, and the base is of cast iron. This standard can be equipped with lantern when desired. The price of the sign as shown is about \$11.00.

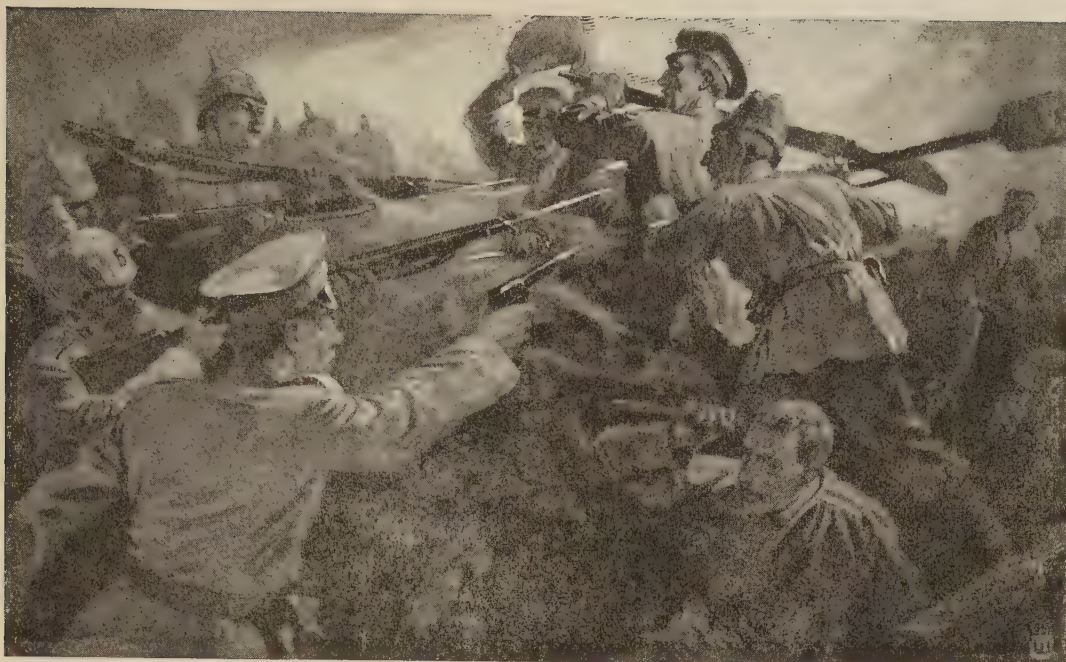


SPONTANEOUS COMBUSTION AS A CAUSE OF FIRE

The reports of the state fire marshal of Iowa for years 1912-1916 show that spontaneous combustion, or the overheating of a substance from causes within itself, is a very prominent cause of fires in the state. In the five years of the reports, spontaneous combustion has regularly ranked 5th or 6th among the various known causes of fires and the total number of fires traced to it annually has ranged from 83 to 153. In the amount of loss, it has ranked from 2nd to 6th among the known causes, its total running as high as \$468,599 in a single year.

Losses due to spontaneous combustion.

Year	No. of fires	Loss
1912	83	\$100,782



The Fate of the Unprepared

Among the remarkable events of this war no fact stands out more startlingly than the tragic sacrifice of Russia's unequipped soldiers.

The army has been victimized by intrigue and treachery. Guns were sent to the front without ammunition and ammunition without guns. Supplies were provided that when unpacked proved to be rubbish. Left stranded by communications that broke down under slight pressure the brave Russian troops hurled themselves again and again against foes perfectly prepared.

From the very verge of victory they doggedly fell back fighting with stones and clubs and iron bars, resisting heroically but ineffectively.

No thought can be more abhorrent to

Americans than that of our boys ruthlessly slaughtered because of lack of equipment or support which it is the first business of us at home to supply.

Our Government, never before so powerful, is working prodigiously in the preparation of armies and means of warfare. Throughout the nation there is a unity of purpose that is piling on the altar of liberty every personal ambition and corporate gain.

Mines, factories, farms, shipyards, the counting houses and shops of every industry are laboring day and night to supply the sinews of war.

The Bell System is co-operating to mobilize production, transportation and communication, and is using its every energy to speed up American defense.



AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy

One System

Universal Service

1913	153	468,599
1914	131	261,045
1915	139	296,036
1916	153	209,153

Most of the losses due to spontaneous combustion are avoidable.

There are three kinds of materials which are subject under certain conditions to spontaneous combustion. These are hay, coal and so-called "drying oils".

SPONTANEOUS COMBUSTION OF COAL

Coal does not generally ignite spontaneously unless stored in large quantities such as used by industrial plants and railroads so that the heat given off from slow oxidation is retained. The presence of finely crushed coal or dust, especially when mixed with larger lumps, appears to aid spontaneous heating. The lumps allow free access of air to the fine coal, which oxidizes more readily, on account of the larger surface exposed. It is said that moisture, especially alternate wetting and drying, aid spontaneous heating, but this has not been fully proved. Storage in the vicinity of a boiler, or other outside sources of heat, should be avoided. Even a slight rise in temperature hastens these oxidation processes and increases greatly the danger of spontaneous combustion. The experiments of the United States Bureau of Mines show that the sulphur in coal, in the form of pyrites, has very little effect on self-heating in coal.

Means of prevention consist mainly in avoiding external heat and limiting the size of the pile to 12 feet deep and 18 to 20 feet wide. The interior of the pile should not be ventilated by pipes or other means. The amount of handling should be minimized, thus reducing the amount of dust. However, a temporary storage will allow the coal to "season", and thus it will be less likely to heat later.

SPONTANEOUS COMBUSTION OF OILS

Drying oils, such as linseed oil, which is used in paint, take on oxygen very readily in the air. This process is so rapid and the heat developed is so considerable that large amounts of such materials are not necessary to retain the heat, as in preceding cases. If a handful of cotton-waste or cloth of any kind, saturated with linseed or cotton-seed oil, be thrown down near any combustible material, a fire may be started in a few hours. Some other plant or animal oils possess

the same property to a lesser degree. Mineral oils, as lubricating or cylinder oils, do not act in this manner.

When linseed oil, for example, is in a pail or can, the proportion of its surface exposed to the air is very small. When spread on a pile of rags or waste, each fiber of the cloth exposes a film of oil to the air, infinitely increasing the amount of surface exposed and the rate of chemical action. Great care should be taken, when linseed oil is used for cleaning or in painting, to destroy oily rags or waste at once or leave them in a place where they can do no damage. Such materials are too often used and left in places where combustible substances, such as packing boxes, are at hand, and in buildings containing valuable stocks of merchandise or machinery. Such carelessness or ignorance is the cause of a large and unnecessary increase in the annual fire loss.

* From circular 36, Agricultural Experiment Station, Ames, Iowa.

Report of Cities Under General Laws

(Continued from page 77)

and torn down 200 buildings. State will back you up.

During the discussion it was brought out that cities could tear down buildings on the grounds of fire hazard and structural defect and they could not be torn down because of unsightly conditions alone.

Motion by Graham that the right to condemn buildings for unsightly reasons as well as fire hazard and structural defect, be referred to legislative committee for action. Carried.

Meeting adjourned.

CLERICAL ERROR

Representative Campbell of Kansas, said in a recent address in Leavenworth:

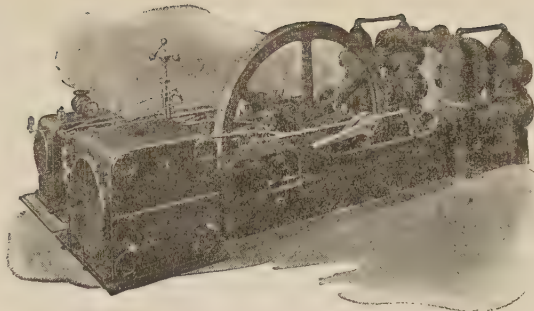
"The corrupt man is always a stupid, ignorant man.

"A corrupt man was arrested once in Wawa.

" 'Wot am I arrested fur?' he asked.

" 'You are charged,' said the officer, 'with having voted eight times.'

" 'Charged, hey?' muttered the prisoner. That's queer. I expected to be paid for it.' "



MARSHALLTOWN, IOWA

Hans Madsen, Superintendent, referring to a 4,000,000 gallon pump installed by this Company, says:

"We are highly pleased indeed. The pump performs far beyond our expectations and the guarantee, and the engine works perfectly."

Write for Bulletin 1637

Allis-Chalmers Manufacturing Co.

Milwaukee, Wisconsin

CONCRETE FOR PERMANENCE

Roads that last

When you plan a public highway, consider first cost and immediate service—but consider the future too.

The first cost of a concrete road is a little more than some types—but it gives better service from the start—and lasts. Costs for maintenance is far lower than for any other type.

Long time bonds are a financial crime when issued to pay for a macadam road that has to be continually repaired and entirely rebuilt after seven years. Quite a different matter to issue 10 or 15-year bonds to pay for the concrete road which is certain to give good service for at least 20 years.

Atlas Road Building Service

Our Highway Department will gladly assist in preparing plans, proposals and cost estimates and will arrange for inspection if desirable. Send for our free book "Concrete Highway Construction."

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New York Chicago Philadelphia St. Louis Boston Minneapolis Des Moines Dayton Savannah

PORTLAND

ATLAS CEMENT



"The Standard by which all other makes are measured"

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Report of Committee on Public Utilities

(Continued from page 84)

be very expensive and that there are going to be very heavy obligations to meet and that they will touch every branch of government and every walk in life. We should not enter into any unnecessary obligations that might in any way impair our strength or our financial resources. The burden of taxation must necessarily increase as the war expenses are piling up. They are obligations which every patriotic and loyal citizen will give preference over all other claims. We should not, in my judgment, place additional burdens on the people that would in any way cripple or embarrass them or make it more difficult to meet this first great obligation, not only this reason, but you will notice that at the present time in Europe practically all utilities are commandeered and controlled by the government. They have not been confiscated nor purchased, but have been taken possession of and their operation is all directed by the government. We have every reason to believe that the condition that exists in Europe at this time is very likely to exist in this country before this great struggle is ended and problems that we are trying to solve in municipal ownership may in a measure be solved by the government.

By those general remarks on utilities I wish to close by saying that the references to public utilities generally is not intended to include waterworks systems, that is I would not discourage in any way the procuring of waterworks plants by municipalities when the same are not already municipally owned as there is a distinction between waterworks and other utilities that should be clearly drawn. Water is, in no sense, a manufactured commodity; it is one of the gifts of nature, it is also a necessity of life and I want to close by saying, I feel it is the duty of every municipality to own, control and operate their waterworks systems.

MORE DOG TROUBLE

The casus belli in this case is a dog. She was a canine of feminine persuasion. She ran at large around, about, and in the incorporated town of Davenport, Lincoln county, Oka. She was unmarked, unbranded, untagged, uncollared, unlicensed, untaxed, unrestricted, and unre-

strained. This in the year of our Lord, 1915.

N. S. Robberson, town marshal, repeatedly besought and earnestly importuned B. H. Gibson, owner of said unleashed female canine, to comply with the ordinance of said town and pay license for the dog. This Gibson persistently declined, neglected and refused to do, telling said Robberson to run down, corral, and otherwise impound said animal; asseverating that, as the blue blood of high breeding coursed in her veins, he would be grateful for her impoundage, as he did not want her associated with the common herd, and would love to have her fed on ham and eggs twice a day. No such menu having been provided for by said town, Robberson demanded the license.

Arraigned before the justice court for violation of the ordinance, Gibson admitted knowledge of the enormity of his offense with an unflinching "guilty". He was fined \$2.00 and costs, and, on failing to pay the same, was duly committed to the town bastille of the ante bellum build and type. After being socked into said calaboose, the said Gibson held the same by "sockage" tenure for the term and period of two and one half hours, when friends came to his rescue as good friends should, but frequently don't, and the said Gibson was duly released. Thereupon Gibson sued Robberson for \$5,000 damages, a sum slightly in excess of the value of his canine, in the district court, alleging that his incarceration was malicious, and that his health was irreparably injured by the over ventilation of the prison house. From a judgment for plaintiff in the sum of \$200.00 and costs, the defendant appealed. The Supreme Court reverses the judgment, and directs entry of one in favor of defendant.

Judge: Jim, why do you say that you hit that other negro with a brickbat?

Defendant: Judge, I hit 'im wid a brickbat 'cause he call me a black, kinky-haired scoundrel. Warn't dat ernuf?

Judge: Jim, do you presume I would hit a man with a brickbat if he should call me a black, kinky-haired scoundrel?

Defendant: Cose you wouldn't, Jedge. But whar if somebody called you de perticular kind a scoundrel what you really is?

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Officers of members of the League of Iowa Municipalities may run one advertisement each month free of cost.

FOR SALE—One Seagraves horse drawn hose wagon and fire harness, same as new, for sale at less than half price. Address, J. O. Gregg, city manager, Iowa Falls, Iowa.

FOR SALE—All brass Artesian well cylinder 5¼ x 36 inches with bronze ball valves and 300 feet of 3½ inch Octegan selected ash wood rods fitted with dropped forge sucker rod couplings, suitable for pumping from deep well, using steam head or lever stroke. For particulars, address G. F. Taylor, city clerk, Stuart, Iowa.

FOR SALE—All brass Artesian well cylinder 3¼ in. x 48 in. with bronze ball valves and 350 ft. of 3½ in. number 1 wood rods and couplings, suitable for pumping from a deep well using steam head or lever stroke. For particulars, address, G. F. Taylor, City Clerk, Stuart, Iowa. 107

FOR SALE—Cities wanting or needing a milk laboratory apparatus can get a bargain by addressing, John Berwald, Mayor, Davenport, Iowa. 107

WANTED—Second hand 10,000 to 16,000 gallon storage tank for gasoline. Lock box 235 Sheldon, Ia.

FOR SALE—A number of good gas meters. Will be sold at a bargain. W. D. Hanna, Clerk, Winfield, Iowa. 57

FOR SALE—Having recently made arrangements with a power company to furnish electricity the town of Coggon has the following for sale. 1-28HP Bates & Edmonds double cylinder gasoline engine. 1-125 Volt 120 amp. continuous load D. C. generator, 1200 R M P. 1-55 volt 25 amp. continuous load D C generator, 1400 R M P. 1 fully equipped switch board. Everything in good condition. For information write F. W. Lindahl Town Clerk. 106

FOR SALE—The city of Shenandoah, Ia., has for sale. 1 Seagraves Hose Wagon in extra good condition fully equipped. 1 Hale Hose Wagon (new) built especially for Tournament purposes. 2 Sets of Hale harness and hangers nearly new. 1 Hand drawn ladder truck with ladders. 2 Hand drawn hose carts in excellent condition. Also will sell one span of fire horses, (thoroughbreds) young and well broken for fire service. Address inquiries to C. M. Conway, city clerk. 106

FOR SALE—Having recently made arrangements with a neighboring town to furnish electric current for lighting and power. The town of Shelby offers for sale a Gas Lighting Plant, complete in good running order will sell at a bargain, as the town has no use for it, address all communications to town clerk of Shelby, Iowa.

FOR SALE—The incorporated town of Milford has for sale 1 Davis carbide feed acetylene gas plant in perfect condition. Model B generator 75 pound capacity. 23 burners with fixturers. 150 feet ½ inch pipe. Will sell at a sacrifice. For information write J. E. Shelledy Clerk, Milford, Iowa.

FOR SALE—Having recently installed a water works system the town of Lowden offers for sale a chemical engine in good condition. For particulars write Richard Parr, Town Clerk, Lowden, Iowa. 116

FOR SALE—85 pieces, 12 feet lengths, 16 inch cast iron pipe; 22 pieces about 21 feet length, 4 inch, extra heavy galvanized with couplings; 8 pieces about 20 feet lengths, 4 inch extra heavy galvanized without couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized with couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized without couplings; 150 feet, 6 inch black pipe; one 20 inch valve, hub end; one 16 inch valve, hub end; one 20 inch sleeve; one 20 inch x 20 inch x 16 inch T; eight 4 inch x 4 inch x 3 inch T, hub; twenty 4 inch valves threaded; ten 3 inch valves threaded; ten 4 inch crosses; ten 4 inch Ts; six 3 inch dresser couplings; thirty 4 inch dresser couplings; ten 4 inch saddles and double straps; ten 4 inch to 3 inch galvanized extra heavy reducers; and eight Cook strainers No. 20. The above is all new and will be sold at a bargain. John I. Bell, commissioner, Marshalltown, Iowa. 917

FOR SALE—One Olson Standard Paving Brick Rattler, nearly new, Price \$75.00. This rattler has been used for about a mile of paving and is in good shape. If interested write P. H. Jones, Clerk, Manning, Iowa.

FOR SALE—The city of Colfax, Iowa, offers the following: Two National steam pumps capacity 500 gallon per minute equipped with Mason Regulators. Two boilers tested to carry 85 pound pressure. One Cameron pump 5 H. P. One National pump 5 H. P. This equipment is in good condition. Will sell all or part. If interested write for further particulars or call and inspect.—H. F. Cassidy, City Clerk.

FOR SALE—18 horse power Watrous fire engine, good as new, complete with 30 foot 4 inch suction hose, same being replaced by high pressure water system. Write or wire at once, for full particulars. Russell E. Whipple, chief, fire department. Lehigh, Iowa.

FOR SALE—The city of Fairfield, Iowa has to offer for sale an 8x8, single stage, Deleval Centrifugal pump and 25 H. P. motor in connection, both in practically new condition. The speed of pump is 1800 revolutions per minute. Address for particulars, City Clerk, Box 2 Fairfield, Iowa.

FOR SALE—Two 2-horse double 50-gallon tanks and one either 2-horse or hand drawn 100 gallon chemical fire engine. Champion make, and in good condition. Inquire Chief Kellogg, fire station No. 1 Sioux City.

FOR SALE—Bates & Edmonds 35 H. P. upright engine, gasoline or kerosene, 2 cylinder, all complete, in good shape. Have installed transmission line current and have no use for engine. Address Percy Lyon, Clerk, Dike, Iowa. 617

FOR SALE—Having completed arrangements with a neighboring city to furnish our electric current we offer the following at a bargain. One 25 horse power special electric Fairbanks Morse Engine. One 20 K. W. Peerless Generator. 60 Amp. hour battery and switch board instruments. Everything in good condition. Address Town Clerk, Hudson, Iowa

PAINTING—If you have water tower or anything in similar line you want painted, write W. O. Potter, Fredricksburg, Iowa.

Report Question Box Committee

(Continued from page 79)

a condensed statement must be published, but where no newspaper is published the proceedings must be posted in three public places on the business street of the town.

COST OF PUBLICATION

Section 687-b Code Supplement, 1913, reads: "That the compensation allowed each newspaper for such publication shall not exceed one third of the legal fee provided by statute for the publication of legal notices."

The legal fee for publication of legal notices is fixed by section 1293 Code Supplement, 1913, as follows: "The compensation, when not otherwise fixed, for the publication in a newspaper of any notice, order, citation or other publication required or allowed by law, shall not exceed one dollar for one insertion, and fifty cents for each subsequent insertion, for each ten lines of brier type, or its equivalent, in a column not less than two and one-sixth inches in width."

These two sections taken together make the compensation allowed the newspapers for publishing the proceedings not to exceed 33 1-3 cents for each ten lines of brier type or its equivalent in a column not less than 2 1-6 inches in width.

IX

Question: Is it a sufficient publication of an ordinance to publish it in full in the regular publication of the council proceedings?

Answer: Yes, if the ordinance is published in full there is no question but what this would meet the requirements of section 686 of the Code, which provides for publication of ordinances.

Several members of this committee contend that ordinances must be published separately as such, and do not wish to be bound by the statement that publication thereof in the midst of council proceedings would be sufficient.

X

Question: Does failure of clerk to publish condensed statement in newspaper, invalidate council proceedings?

Answer: We are all agreed that it would not. We do not believe that the courts would, under any theory, hold that the requirement was jurisdictional, and would affect the validity of the proceedings. At the most, if there is no discre-

tion, it could only make the clerk and council subject to a mandamus proceeding.

XI

Question: Under the law authorizing a sewer outlet, and purifying plant tax and issue of bonds, can a levy be made for twenty years, under section 906 and 912 of the Code, or is it levied under section 831, and limited to the ten year levy?

Answer: The procedure under sections 906 and 912 of the Code, can be, and should be followed, in cases of this kind. In the procedure under section 840-g, you will notice that it is stated that certificates or bonds may be issued as provided by section 912. On referring to section 912, you will notice that it states that all of the provisions of chapter 12 shall apply to such bonds. Section 906 is within chapter 12, and same provide that bonds may run for twenty years. There can be no question, therefore, that these sections apply in this case, rather than section 831 of the Code.

XII

Question XII was submitted by the town of Littleport, and involves matters of vacation of a part of a street and of adverse possession for many years of a portion of the street. The matters appear to be very complicated, and from the limited statement of facts given, the committee was unable to give any definite answer. The committee will be glad to discuss the matter with anyone representing said town either personally or by correspondence. However, we would refer the town to the following decisions, which are pertinent to the subject of dedication and vacation of streets and alleys, and the question of adverse possession of same: *Davies vs. Huebner*, 45 Iowa 574; *Waterloo vs. Union Mill Co.*, 72 Iowa, 437; *Weber vs. Iowa City*, 119 Iowa, 633; *Johnson vs. Shenandoah*, 153 Iowa, 493; *Bridges vs. Grand View*, 158 Iowa, 402; *Christofferson vs. Forest City*, 160 NW. 691.

Respectfully submitted,

Henry Peterson, Council Bluffs,
Chairman.

H. A. Willoughby, Grundy Center
C. M. Updegraff, Iowa City
Fred Townsend, Albia
M. H. Czizek, Dubuque
Guy J. Tomlinson, Cherokee
John H. Scarborough, Bloomfield
Steele Blake, Perry
C. E. Jory, Sheldon
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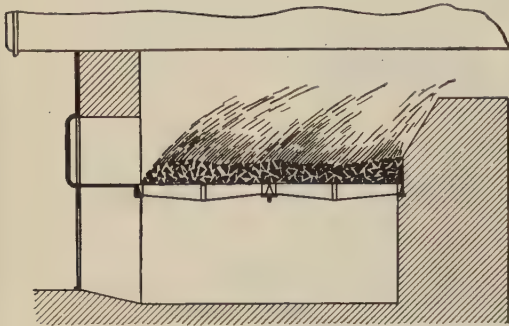
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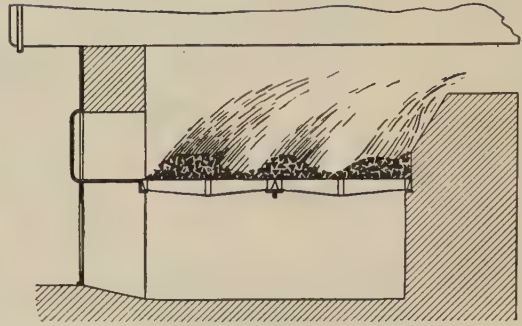
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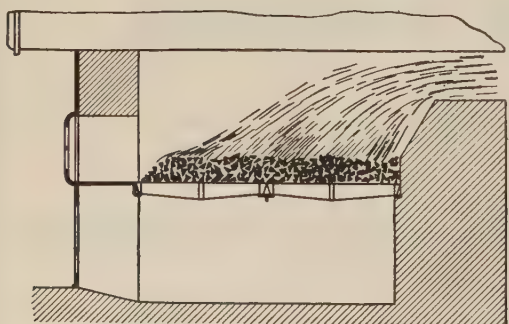


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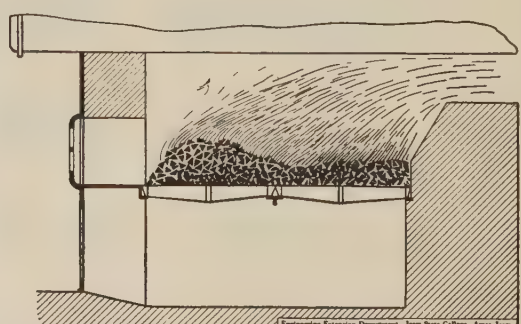


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1. Break up large lumps to fist size.
2. Fire small quantities at regular intervals.
3. Leave fire door damper open 2 or 3 minutes after firing.
4. Fire one door at a time, and wait until the fire in front of that door is in good shape before firing the next one.
5. Carry a thin, level fire over the entire grate.
6. Fill up the holes or thin spots when firing. Never cover the entire fuel bed with fresh coal.
7. Keep the fires clean and bright and avoid clinkers. Clinkers are also caused by slicing the fire, and by fire in the ash pit.
8. If necessary to fire heavy charges at long intervals, use the coking method shown below. After the coal is coked it should be spread all over the fuel bed.



Open Fire Door Damper After Firing



Use Coking Method for Large Charges

American Municipalities

January, 1918

Vol. 34, No. 4

Entered as second class matter December 1, 1911 at the Postoffice at
Marshalltown, Iowa, under the Act of March 3, 1879.

Published by

Municipal Publishing Company

Marshalltown, Iowa

Frank G. Pierce, Editor

Subscription Price, - - - \$1.00 per year

Advertising rates made known on application

TO MUNICIPAL OFFICIALS

Municipal officials receiving American Municipalities need have no fear of incurring financial obligations. If you are not a subscriber, either the municipality you represent is a member of one of the Leagues of Municipalities and you are entitled to a copy free, or the copy you receive is a sample copy.

Resolution Adopted by League of Iowa Municipalities

That without evasion or reservation, we do promise that our every word, act and deed shall be in support of our President, our Governor, our Sons and Brothers,—the Sons of the Republic—and their Allies across the sea who are fighting the battle of liberty and freedom, the battle of the weak against the strong, of right against wrong.

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COMMENT

Every municipal official should read the paper by Robert E. Cushman, published in this issue on Municipal Activities in War Time.

Municipal officials are the ones who should take the lead in all patriotic work as they better than anyone else can lead their people along the right lines.

Each official should select the kind of work in which he can be of the most value to the nation and then give his time to that work.

Each mayor should endeavor to have the war work systemized, so that the people will work to the best advantage.

Another work that the mayor and police can do is to see to it that no grafter is allowed to work on the claim that his work is for the country.

Entertainments for war purposes or the Red Cross should be carefully investigated to be sure that they are not private enterprises rather than public ones.

Encourage every legitimate effort to help the war but be sure that no grafter is allowed to take advantage of the people's patriotism.

The greatest care should be exercised in deciding on the public work for the coming season.

The people will be obliged to buy several issues of government bonds during the year 1918 and will need every dollar for this purpose.

No new work should be started unless it is absolutely necessary or will directly help win the war.

The country will need all the workmen to build ships and make munitions and it is unpatriotic to use these men for any purpose that does not directly help in the success of our armies.

The one main business of the American people at this time is war and we should all attend to this business before any other.

The Wellman Electric Light plant has recently been sold to Mr. Carson of Washington, Iowa, who owns the Washington plant and will furnish the current for the Wellman consumers from the central station at Washington.

The city of Virginia, Minnesota, has established a municipal wood yard. Wood is plentiful in the vicinity of Virginia, and the city laborers, under the control of the street commissioner, go to the woods, cut the timber and bring it to town where it is sold to the citizens at no profit. The municipal wood yard is already one of the most popular institutions of this thriving Minnesota city.

The Iowa Light and Power Company has recently completed an entire new power plant at LeMars, which as soon as the transmission lines are completed, will furnish Rensen, Alton Orange City and Kingsley with current. The large central station reduces the cost of producing electricity and with this reduction in cost the consumers should be entitled to a fair rate on the current they buy.

The Commercial Club of Davenport, Iowa, has asked the council to take over the contract for the payment of the electrolier lighting system. A few years ago the business men in every city and town installed electroliersystems and in most places paid the cost of the current, but after they were once installed, efforts were made in many places to have the cities take over the lighting expense. It is doubtful if a five light electrolier system should be maintained in any city at the expense of the general tax payers. With the municipalities taking over the expense of maintaining the lights, it would be good policy to cut the electrolier system down to the "one light pole".

The council of Webster City unanimously turned down a request by the local company for an increase in gas rates over the present rate of \$1.50 per thousand feet. A number of increases have been made in the gas rates, but usually these have been in cities where the rate is considerably less than \$1.50. The following increases have been allowed in Iowa. Decorah, \$1.30 to \$1.45, Independence, \$1.35 to \$1.65, Waverly, \$1.40 to \$1.60, Clinton, \$1.40 to \$1.65, Marengo, \$1.35 to \$1.85, Grinnell, \$1.40 to \$1.90. The company at Omaha has raised its price on gas from \$1 to \$1.15. The Iowa Railway and Light Company has asked an increase in the rate at Marshalltown from \$1 to \$1.15,

but as yet no action has been taken on this request. This company makes a claim that where a few years ago the coal necessary to produce a thousand feet of gas cost them about 30 cents at their plant, that today the same coal costs them from 80 to 85 cents.

The Des Moines Water Company has made a proposition to the city to take over the waterworks. Recently the company offered to sell to the city the waterworks plant for a price equal to the value of the property as fixed by the condemnation court of April 1912 being the sum of \$2,302,522 plus all expenses for improvements and betterments made by the company since that date. The city of Des Moines has been trying to secure control of the waterworks system for the last twenty years, and while the offer by the waterworks company might be a high price for the system, yet the city, within five years, would be much better off by accepting the proposition made by their company at this time. The waterworks is the one public utility that should be owned by the municipalities, and the city of Des Moines will make a good deal even though they boost the valuation, and accept the offer made by the water company.

The Iowa Falls Electric Company has petitioned the council of the town of Belmond for an increase in electric rates. Where a company will come in and lay all facts before the council giving to the investment and the actual figures a to the cost of operation, in detail, so that a city council can be convinced that a company is losing money under the present rates it is then all right for the council to grant an increase. However, before any increase is granted, it should be insisted, that the utility company file a complete statement in detail and such statement should be verified by some competent engineer, or other accountant, in order to satisfy the council that a rate increase is necessary.

OKLAHOMA BUILDS WARRENITE

The Board of Commissioners of Okmulgee county, Oklahoma having previously voted an \$800,000.00 serial road bond issue and having sold the bonds at 5 per cent premium, received proposals October 17th, for improving the principal roads in the county with either brick, Port-

land Cement, Concrete, Macadam or Warrenite.

Under advise of Harrington, Howard and Ash, consulting engineers of Kansas City, the Board of County Commissioners, recently awarded the contract for the entire road construction to the Western Paving Company of Oklahoma City, for Warrenite road, to be constructed under the patents and expert laboratory supervision of Warren Brothers Company, Boston, Massachusetts.

The contract price is \$2.28 per square yard exclusive of grade and drainage and including macadam foundation. The grade and drainage contract was awarded to the Harrison Construction Company of Henryetta, Oklahoma, for approximately \$175,000.00.

Warrenite is similar to Bitulithic as used on city streets and is the construction adopted three years ago for the celebrated Columbia River Highway and approaches thereof from Portland, Oregon, approximately 72 miles.

Okmulgee county is rich in oil, particularly in the north section and coal in the south section.

A CHANCE FOR YOU

If you are a municipal official and wonder what to do to keep busy without ordering in improvements that are not absolutely necessary you might study the power plants in your town and see they are getting all the power possible out of the coal consumed.

If you have a municipal water or light plant or both make a careful investigation of that. By cutting down the consumption of coal you will be doing a patriotic thing and one that will save money as well.

That there is a great chance for improvement is well shown in a recent paper by David Moffat Meyers, member of the American Society of Mechanical Engineers. Mr. Moffat says:

PREVENTABLE WASTE OF FUEL

"The preventable waste of fuel in the boiler furnace of one steel mill amounted to 40,000 tons per year, which at \$5.00 a ton would cost \$200,000. This was a comparatively modern plant. The efficiency of boilers and furnaces in a 14-day test was 55 per cent. The load factor was unusually favorable to high efficiency and could readily be raised to 70 per cent or over. This is only one example and there are many more extreme cases. In one

hand fired plant the evaporation was raised from 6 to 9 pounds in a few days of instruction, and continuously kept close to this higher mark with the help of coal and water measurements which were inaugurated. The saving was due exclusively to instruction and consequent better operation.

"The saving or wasting of one-fourth of the coal consumption of any industrial plant depends entirely upon the efficiency of its operating management. Let me emphasize that this fraction of the consumption relates exclusively to the boiler plants, i. e., the production of steam; and does not include the large economies possible in connection with its distribution and use.

"For well-known reasons the boiler plant offers the more lucrative field for producing economies, and these with a minimum of alteration in physical equipment.

"Under present conditions a plant which carelessly operates at an efficiency of 40 to 50 per cent receives from the government the same consideration in the delivery of coal as the one whose efficiency is 70 to 75 per cent. This obviously is unfair as well as wasteful.

"In general, there are two plans of operation worthy at least of consideration. One might be termed the automatic method. This would involve the use of authority to compel coal consumers to execute such measures of economy as the proper authorities might prescribe for any given case. Limits to be set as to expense to the user. Such limits might be in terms of a percentage of their present yearly coal bill. Alterations to be directed chiefly, as previously implied, to purely operating improvements. Many objections would probably be made by consumers against this plan, but once in effect the majority would no doubt realize its pecuniary advantage to themselves. But its tendency may be too strongly opposed to democratic principles.

The other plan would be largely an educational one, in which patriotism and efficiency would furnish the motive forces required.

"The requisite information must reach the owners and managers of industries, and there must be simple instruction sheets for the engineers and firemen. The vital importance of daily accurate records of coal and water must be taught and information given regarding practical appliances for automatic measurements of both.

"Six hundred million tons of coal were mined in the United States in 1916. If we assume only one-half of this to have been used for our industrial boiler plants, then a quarter of of the coal used under boilers amounts to 75,000,000 tons per year. It is worth while to save this fuel by preventing its waste. This quantity of coal represents the use of 1,500,000 fifty-ton freight cars."

NEW YORK ESTABLISHES THE FIRST MUNICIPAL MUSEUM

The first municipal museum in the United States has just been established through the efforts of the college of the city of New York, co-operating with the various city departments. It is intended to act somewhat as an academic clearing house—though popular in tone and expression—between the citizens of the city and those who govern it, supplying statistical data and general information to municipal employees, civic workers and co-operating with real estate Boards of Trade, Merchants Associations, Bureaus of City Inquiry, Municipal Research Societies, Welfare Leagues, always aiming for "more light", in Goethe's phrase, on municipal matters, advocating and prosecuting a pitiless publicity campaign for the guidance and protection of all citizens.

Mayor-Elect Hylan appreciates the need for a municipal museum, saying, "Some way should be found, it seems to me, to submit to the people for their approval or disapproval the expenditure of any sum of money over \$500,000", also "The taxpayers and rent payers are equally interested in the proper expenditure of the city's money." We have "monkey houses" and "botanical gardens" and "lion houses" but this is the first "house" to be built for Father Knickerbocker in which to "tell his story".

The committee in charge of the municipal museum is made up of Deputy Comptroller Edmund D. Fisher; secretary of the Board of Water Supply, George Featherstone; director of Vocational Subjects of the college, Dr. Frederick B. Robinson, who is intensely interested in the museum and the president of the college, Dr. Sidney E. Mezes. Francis J. Oppenheimer, the director of the museum, comes well equipped for the task. An experienced newspaper man, he has already prepared two budget exhibits for the

city of New York which were instrumental in making such tremendous saving for taxpayers.

THE OBJECT OF WAR

In times of war we must revise all our ideas in relation to the paramount objects in life. In times of peace it is well to talk of "good will toward men", and "love your enemies", but when a nation enters a war it does so with just one object and that is to defeat its enemy. This can be done either by keeping supplies from your enemies so that they will give up rather than starve or by killing so many of them that they will surrender to save their lives.

After three years it is pretty well established that we cannot starve our enemies into submission so that the only alternative is to kill so many of them that the rest will give up the battle. This is a plain statement of the conditions that confront the American people and we must meet it as best we can. It may be true that many of our citizens remember the land of their forefathers and even now have relatives in the armies of our enemies.

In the first war, when only two took part, Cain slew Able. In every war since then brother has fought against brother and relative against relative.

Most of the soldiers of the Revolution were of the English race but that did not stop them from killing their enemies either in that war or in the war of 1812. In many battles of the period of the French Revolution, relative fought against relative. Many of the first German settlers in this country came to these shores because they thought it well to fight against their rulers, their countrymen. In our own Civil War thousands of relatives fought against relatives on the other side.

These are the unpleasant things of war but it can hardly be expected that war will not bring unpleasant conditions. These conditions are no excuse for a divided allegiance and however hard it may be every citizen must accept the conditions and fight the war in the way wars are won. We must get ready to kill and that soon.

We must forget all frills and hobbies and get down to the business of killing. This is the soldiers business. Either get your enemy or he will get you. Let us, for the time being, forget the soft habits of peace and become like our forefathers, from whatever land they came, men of rich red blood, who fight their enemies and kill them as real men have killed since the beginning of time.

National Municipal League

Report of Committee on State Municipal Leagues, Homer Talbot, Lawrence, Kansas

Your committee on State Municipal Leagues submits two reports.

(1) First will be read that prepared by Mr. W. P. Capes, secretary of the New York Conference of Mayors and other city officials and chairman of committee. The report drafted by Mr. Capes is as follows:

"Your committee on State Municipal Leagues is unanimous on two points, namely: (1) That only one worth while suggestion can be made by it at this time; and (2) That a special effort should be made by the National Municipal League to have a national conference of secretaries of state leagues in connection with its annual meeting in 1918.

"Such a conference, we believe, should bring about a closer affiliation of state organizations in order that they may participate actively and unitedly in the solution of national problems affecting all municipalities, establish a more direct interchange of ideas and act jointly in defense, whenever the necessity arises.

"We recommend that either our successors or the secretary of the National Municipal League, or both, be directed to correspond with the president of each state organization and urge that at its next annual meeting his league make provision to pay the expenses of its secretary to an annual conference to be held in 1918 in connection with the meeting of the National Municipal League."

(2) The tentative report just presented not meeting with the entire approval of all the members of the committee—in that it was thought inadvisable to delay longer in the movement for the call of a conference on state municipal leagues—the matter was taken up thru correspondence with the secretaries of a number of such organizations.

In harmony with the responses received, favoring the calling of a meeting of executive officers or state municipal organizations and others interested in the work of such associations, and the holding of such a conference in connection with the sessions of the National Municipal

League this year, action has been taken accordingly.

Two conference sessions have been held—one or both being participated in by representatives of the leagues of municipalities of New Jersey, North Carolina, Minnesota, Texas, Wisconsin and Kansas, and by a city manager from Virginia and a Kentucky city executive—and a temporary organization of state municipal league has been effected. The name of the newly established association is "The Conference on State Leagues of Municipalities".

The following subjects, among others, have been discussed at our meetings:

The need for better co-operation between state leagues of municipalities, and methods for obtaining it; relations of state leagues to the National Municipal League; budgets of state municipal organizations; activities and services of state leagues; relations to other organizations and institutions; associate members, and state municipal league conventions and publications. We also held a post-mortem over certain state leagues of municipalities, and a consultation over the condition of others. We, however, are glad indeed to report the finding of good conditions in a considerable number of state leagues; with excellent outlook for real and continued progress and service on behalf of the people of the cities and towns of the states.

We also report that at our conference to be held tomorrow morning we expect to take up the subject of war services of state leagues of municipalities, and a further discussion relating to other activities of state municipal organizations.

The Conference on State Leagues of Municipalities has organized in temporary organization, for the coming year, with Mr. Claude H. Anderson of the New Jersey League as secretary; the writer of this report as chairman; and with a vice-chairman and trustees the names of all of whom will be made known upon the receipt of their acceptance.

(Continued on page 122)

Muscatine Mayor Talks Coal

Hon. R. S. McNutt talks to Muscatine Business Men

First I want to thank your committee sincerely for the courtesy which has afforded me the opportunity of being with you at this luncheon.

Before entering into the discussion of the coal situation, I want to go back to the time when an enormous petition was presented to the council, asking that a municipal fuel yard be established. Following this a member of the council presented a resolution for the submission of the question to a vote of the citizens of Muscatine, and when the vote was taken it resulted in a tie, therefore leaving the question for me to decide, and which I did without any hesitation. Kindly keep in mind that the question submitted in the resolution was the submission of the fuel yard matter to a vote of the people. This being the case, I decided, or voted in the affirmative, giving the citizens of our city the right to determine for themselves whether or not they wanted a municipal fuel yard. I want to say, gentlemen, that so long as I am mayor, should it ever occur that it falls to my lot to determine whether or not our citizens shall have the right to vote upon any question, you will, at all times, find me voting to give them that right.

I might add that I made some enemies by my voting in the affirmative on the fuel yard resolution, among some of the men engaged in the coal business. These men expected me to vote "no" on that resolution, and thereby depriving the people of the right of determining for themselves whether or not they wanted the yard.

I was engaged in business in this city for twenty-seven years and I believe in every business man selling his wares and goods at a fair, legitimate profit. He must do that in order to exist or continue in business; but I am unalterably opposed to any men, or set of men, combining in any form for the purpose of fixing prices or limiting the supply on any article. That these combinations, whether great or small, work a hardship upon the great mass of the people, and from which they have no relief, unless some public

official has courage enough to take up their cause and fights it out.

Now, going into the matter of the investigation at Des Moines, in which I had the honor of being a member of the committee appointed for such purpose, I desire to say that from the information before us, which was quite extensive, we found that the extreme cost of production at the mouth of the mine was, and is, \$2.25 per ton, mine run.

Operators appearing before us testified to costs at the present time, ranging from \$1.90 to \$2.25 per ton. This included labor, supplies, depreciation and all other costs.

The investigation also showed that under normal conditions, operators have been satisfied with a profit, over cost of production at mouth of mine, of from 10 to 12½ cents per ton; whereas, the present maximum fixed price permits of profits aggregating more than 100 per cent on the investment of the mine properties.

One witness testified that coal was sold to the Burlington railroad for \$2.15, and that the same grade of coal was sold to the government at Camp Dodge for \$3.40 per ton.

One operator testified that his company has from \$50,000.00 to \$75,000.00 invested in their properties, and that this year they would make \$100,000.00 profit, if they were allowed to continue at the price fixed by the government; or, in other words, the profit would be 125 per cent on the money invested their properties. This was the large mine. As to one of the smaller mines, we found from evidence furnished us by the operators that on an investment of \$3,000.00, the mine could, in two hundred days, return a profit of \$5,000.00. The cost of producing at this mine was \$1.90 per ton, which included all costs and expenses of operation, including depreciation, and overhead expenses.

We had witnesses who represented the C. R. I. & P. railway, the C. M. & St. P., and the Northwestern; all testified that there has been no shortage of coal cars for three or four months.

We also had miners, who testified as to laborers, and they said that the miners were all working and were willing to work over time, if it would help conditions, should they be given the opportunity; that labor has been co-operating fully with the mine owners and the government. This investigation has placed the responsibility for the high price of coal on the operators, who have been trying to place same upon the laborers and the railroads.

The government fixed the maximum price at the mine without first informing itself as to the cost at the mouth of the mine, and the operators immediately took advantage of the fixed price, and all raised their prices to the maximum government price.

Now, gentlemen, in order to win this war, the business men of this country must make some sacrifice, not of their possessions or property, but of their profits, as hundreds and thousands of our best young men are offering their lives for the cause; mothers, wives and sisters are making the greatest of all sacrifices, that of giving up their boys, their husbands, their brothers; thousands of families have lost their bread winners; they have been reduced from \$75 or \$150 per month, to \$30 per month, and in addition to this, those at home are compelled to buy their coal at an outrageous price. I want to say, gentlemen, that it is up to us to see that those at home shall not freeze for the want of coal, or on account of the high price thereof.

It was for this very purpose, that the committee, of which I was a member, conducted its investigation, and after finding the cause, and fixing the responsibility for the same we sent the following message to President Wilson:

"Public hearing on the coal situation in Iowa has been conducted before the governor and three mayors representing the League of Iowa Municipalities.

"The investigation covered cost of producing coal at the mouth of the mine, the amount of coal in the state and distribution. Coal operators, miners, small and large users of coal, railroads and retailers were invited to appear and present their views and such facts and information as they had, and all responded except a few coal operators, who banded together, refusing to give information. Evidence, however, was produced

by large and small operators, representative of the state.

"The hearing lasted four days. Every phase of the subject was covered, and information formerly secured was also a part of the record in the case. All of this information is in shorthand and will be furnished to you and the federal trade commission, if desired.

"From the information before us, we find that the extreme cost of production at the mouth of the mine is \$2.25 per ton at the present time, mine run. Operators appearing before us, testified to costs at the present time ranging from \$1.90 to \$2.25 per ton. This information includes labor, supplies, depreciation, and all other costs.

"The record also shows that under normal conditions, operators have been satisfied with a profit over cost of production at mouth of mine of from 10 to 12½ cents per ton; whereas, the present minimum fixed price not permit of profits aggregating more than 100 per cent on the investment in these properties. This was conceded of record by actual operators, under oath, on the witness stand.

"In the view of the above finding of facts and the intense public interest shown by the people through the state we therefore ask that the maximum price fixed by the coal administrator, for Iowa coal at the mouth of the mine be reduced at the earliest possible moment.

"We find that there is no substantial shortage of cars in the state, that the mines are operating to their full capacity, so far as labor conditions will permit, and that labor is co-operating in every possible way.

"If this information is questioned from any source we pray for an opportunity to hear and answer such objections."

This message was signed by Governor W. L. Harding, Mayor John McVicar, of Des Moines, Mayor M. B. Snyder, of Council Bluffs, and myself.

Mr. George Kuhns, of Davenport, purchasing agent of the United Light and Railway company, which operates street car lines, electric light and gas plants in Indiana, Illinois, and Iowa, testified that the price of steam coal in September, 1916, was an average of 97 cents per ton,

(Continued on page 124)

Service Clauses in Public Utility Franchises

Arthur H. Ford, Professor of Electrical Engineering, State University

A public utility franchise is primarily an instrument giving the use of the streets to the purveyor of a public utility, for the purpose of constructing thereon such structures as may be required for the distribution of the utility to the inhabitants of the city. This grant of the use of the streets implies that they be used in such a way as not to seriously discommode others who may legally use the same streets. That there will be some interference goes without question; but the inconvenience caused by the presence of the public utility structures is assumed to be less than the benefits conferred thereby, otherwise the franchise would not be granted. The relative rights of the various uses of the streets are commonly specified in the franchise.

The franchise should also specify that the commodity supplied or the service rendered shall be satisfactory in quality, sufficient in quantity and that the charges should be reasonable. The question of charges is usually taken care of by specifying maximum rates which shall not be exceeded. Many franchises omit all mention of the commodity or service; leaving that to be determined by the public utility company, in accordance with the dictates of its business interests. This frequently results in the giving of poor service; because such public utilities as the supply of water, gas, electric energy, telephone service and transportation by street cars are natural monopolies. The customer is therefore not free to get the service from another source, but must take what is offered. The self interest of the public utility manager leads him to supply that quality of service or product which will produce the greatest net return on the capital invested. Where the giving of better service will require the investment of additional capital or the increase in operating expenses the manager will be slow to improve the quality of the output of his plant unless it is certain that the improvement in quality will result in greatly increased sales. The specifying of the quality of service or product, as well

as the maximum price which may be charged, is therefore desirable.

Granting that it is desirable that the quality of the commodity or service be specified in the franchise, the question arises as to how to ensure that this quality is maintained. Many franchises contain no provision for the enforcement of their terms other than the forfeiture of the franchise. This, in practice, means no workable provision; for the product of the public utility plant being an absolute necessity, in many cases the stopping of the plant and forfeiture of the franchise is a greater hardship to the patron than to the public utility company. A reasonable way for overcoming this difficulty would be the introduction of a provision which would automatically reduce the rates for such a period as the quality of the commodity or service was below standard. This reduction in rates could justly be made proportional so the reduction in quality of commodity or service below the fixed standard. In some cases, as in transportation service, a discount in the rate is not feasible; so some payment to the city granting the franchise should become due whenever the quality of the service falls below the standard.

The quality of the product is a technical question which cannot be given a simple answer of general applicability; but must be determined separately for each class of cases. Some of the points involved will now be given for various classes of public utilities.

WATER SUPPLY

A city water supply should, first of all, be safe for household use. Such safety is usually secured by a requirement as to the allowable maximum number of bacteria per cubic centimeter and the proportion of other impurities. The normal pressure should be such that water is supplied to the upper stories of dwellings throughout the city. This requires the specifying of minimum pressures at the high points of

(Continued on page 124)

American Municipalities in War Time

Paper Read Before the Illinois Municipal League, Urbana, Illinois, December 7, 1917, by Robert E. Cushman, Instructor in Political Science, University of Illinois

1. TYPES OF MUNICIPAL WAR WORK

The gigantic task in which America now finds herself engaged is demanding of every individual, organization and governmental unit two things. The first is service, loyal, unstinted, intelligent, efficient. The other is team-work. It is not enough to realize that every resource of property and energy must be put unhesitatingly at the nation's disposal. We must paraphrase Milton's famous line to read "He also serves who keeps from getting in the way" and stand willing to co-operate to the point of individual self-effacement, to co-ordinate our activities so that friction is avoided, useless duplication of effort is spared, leakage, waste and inefficiency are stopped.

This, then, is the two-fold task of the American municipality in war work—to render cheerfully its utmost service—to render it in intelligent co-operation with all the other agencies, great and small, which are putting forth their own loyal efforts to the same great end. It is these two aspects of municipal war service which will mark out the two main divisions of this paper.

In the first place, then, what can the American city do to help win the war? Perhaps this question may be most easily answered by stating briefly what the American city has thus far done. Naturally, needs, opportunities and facilities for war service differ widely. They will vary with the size, location, racial problems and industrial conditions of the municipality. The city of 30,000 need not strive to duplicate the war activities of the metropolitan district of New York any more than it should content itself with emulating those of the country village. The following analysis, however, makes an effort to place on exhibition the more important styles and sizes of municipal war work, with the idea that the individual town or city may select those best suited to its own peculiar problems and conditions. These activities may be placed

roughly in ten groups, each one of which warrants some little comment.

2. CO-ORDINATION OF SOCIETIES AND ORGANIZATIONS

Second, there is the task of co-ordinating the patriotic work of societies and organizations. All kinds of private groups, clubs and associations, social, professional, political, religious, philanthropic and propagandist, are endeavoring to contribute in some degree to the successful prosecution of the war. Sometimes they are trying to do the same thing when there should be a division of labor; sometimes they are attempting different things when their energies and resources should be pooled; sometimes they are seeking to accomplish the same end by a variety of different means. Many municipalities have successfully arranged for a central agency, a local committee or council of defense, in which these agencies may be directly or indirectly represented, and through which their efforts may be co-ordinated so that the multiplication of overhead expense, the duplication of machinery and the wasting of effort may be largely eliminated. The energies of all the private agencies can thus be marshaled solidly behind a community effort, such as the promotion of the liberty loan, in which concentered action is necessary, while at other times each one can be assigned the particular kind of work which it is best fitted to do. One of the serious problems produced by the war has arisen from the repeated, competing, multifarious and sometimes ill-advised campaigns undertaken in so many cities by self-authorized persons or groups for the raising of money. One or two states have felt obliged to deal rather drastically with this problem and passed legislation making it illegal to solicit war funds of any nature without first securing a permit from the state council of defense. It is believed that such stringent action would be unnecessary if in cities as well as in counties and states the patriotic activities of societies and organizations were

co-ordinated by the creation of some central agency which could act as a sort of clearing house and directing force.

3. PUBLICITY AND EDUCATION

In the third place municipalities can make themselves most efficient agencies of publicity and education on matters relating to the war and its problems. Its work in this direction may be either direct or indirect. To begin with the city may, of course, pay for such advertising facilities as are necessary for its work and which it cannot secure free of charge. But many existing agencies and instrumentalities may be turned to account for this purpose without great expense. Streets and public places may be utilized for purposes of display, parade or demonstration, public buildings may be used for mass meetings, the schools may be utilized as a means of reaching parents as well as children. Churches, clubs, theaters and newspapers are usually willing to co-operate in providing effective means of publicity if the city will call upon such agencies and tell them what to do. It is unnecessary to discuss or even fully to enumerate the kinds of propaganda which the city might well further through the various means just mentioned. Whether it be helping Uncle Sam to recruit men for the army or navy, or persuading its citizens to buy a bond, or raise potatoes, or cut the loaf at the table, the municipality may render exceedingly valuable service to the nation by acting upon the principle that it pays to advertise.

4. THE MOBILIZATION OF MUNICIPAL PROPERTY AND LABOR

In the fourth place, the city may place at the disposal of the national interest such municipal property and such time and energy of municipal officers or employees as may be so utilized without prejudice to the work and welfare of the city. Cities have only begun to realize, for example, how useful the public schools may be made for war service. As agencies of publicity they have already been mentioned. Municipalities here and there have found that school buildings are conveniently located and well equipped for meeting places after school hours, for various patriotic gatherings, that they can be effectively utilized, for headquarters for registration or draft, for administering relief, for assembling and dispatching war material or for the conducting of work among aliens. School

gymnasiums, playgrounds and parks have been put at the disposal of organizations, official or private, who have wished facilities for military instruction and drill. Other public buildings have been made available in like manner. Vacant land owned by the city has been thrown open for the cultivation of war gardens. Not only have buildings and property been enlisted in war service, but the municipality has in some instances set its officers and employees at work to the same end. With careful planning several kinds of work may be turned over to the police department without perceptibly interfering with the efficiency of that organization. The officer on the beat is frequently in a position to secure information, make inquiries and investigate conditions much more easily than any one else. The invaluable service rendered by the police of New York City during the hard times of three years ago in helping to cope with the problem of unemployment is illustrative of what may be done along this line. There is no reason why the police officer in these war times should not secure data regarding unemployment, destitution, location of aliens and many other matters about which the municipality ought to keep itself informed. In short, if our cities were to make a careful inventory of their present resources and use their imaginations and ingenuity, they would be astonished at the extent of the war service they could render with very little expense merely by this effective mobilization of their property and the spare time of their public servants.

5. EMPLOYMENT AND THE LABOR SUPPLY

A fifth form of war service open to the municipality relates to labor and employment. If there ever was a time in the history of the country when there was no excuse for idleness, now is that time. And yet the problem of bringing together the man who can do the work and the job that needs to be done is not an easy one. One of the most common forms of municipal, county and state war activity has been that of trying to solve this problem of the distribution of labor. A free employment agency constantly endeavoring to keep in touch with men available for work in war industries or on the farms renders invaluable service when co-operating with those state or national agencies which are attempting to place most advantageously every available unite of labor. Such an

employment bureau or labor exchange can also keep a register of the persons who are willing to volunteer for various forms of war service and act as a medium between them and those who can effectively direct their patriotic efforts.

6. RELIEF—CHARITIES—HEALTH

In the sixth place, an important work can be done by our cities in the dispensing of needed relief, the administration of charity and the safeguarding of public health. First of all, the families of the men who are in the army and navy will frequently need at least temporary assistance until the national government can adopt a permanent policy for their relief. Even more frequently will they need comfort and advice and guidance. Surely the city can do no more useful work and discharge no higher obligation than in rendering such aid as it can to these people. Many of the problems incident to the ordinary administration of public charity become more complex and acute under the stress of war and will call for special exertions and high efficiency on the part of the city. And, finally, at a time when the staying power of the nation is more than ever before dependent upon the physical vigor of its citizens and at a time when many of the common restraints and precautions are in danger of being forgotten, the municipality must put forth unusual efforts to see that existing health regulations are rigidly enforced and new measures taken to meet emergencies which may arise.

7. WORK AMONG ALIENS

A seventh, and most important type of war service may be rendered by many cities in dealing with aliens and the problems which their presence in our midst creates. The acuteness and complexity of this problem will vary greatly from place to place. In cities where aliens are numerous at least three forms of work may well be undertaken under the direction of the municipal authorities. In the first place, certain protective measures may be taken to forestall or check depredations or injurious propaganda carried on by enemy aliens. Of course, the national government is the authority which must deal with the cases of treason, espionage and sedition. The city may render valuable aid, however, by securing through its police or other agencies as accurate information as possible, relating to the presence of enemy aliens or the

existence of suspicious circumstances. Should it seem desirable to require a nation-wide or state-wide registration of aliens the cities would naturally undertake the task of doing that work or helping with it within their own limits. In the second place, either directly or by co-ordinating the work of other agencies, the city may help along the Americanization of aliens. Suggestions, information, advice and encouragement are frequently needed by the foreigner who wishes to become naturalized. With the enormous increase in the number of applicants for citizenship, the need has also increased for agencies which will help the alien through the complexities of the naturalization process, and many municipalities whose foreign-born population is large, have rendered efficient service in this direction. In the third place, some cities have established bureaus for the purpose of bringing about among the foreign-born—be they naturalized or not—a greater feeling of loyalty for the government and of giving him an opportunity to air his grievances and understand more fully why sacrifices and burdens are required of him. It has been true, in many cases, that the most absurd and erroneous ideas regarding conscription have prevailed among the relatives of drafted men of foreign birth many of whom do not understand English. These ridiculous impressions turn the potential patriot into the bitterest malcontent. To the shame of some communities, peaceful and law-abiding German or Austrian citizens have been subjected to wholly unwarranted abuse and discrimination by persons to whom all Germans look alike, and these bureaus have been able to adjust many such difficulties and preserve the loyalty of the man who is trying his best to adjust himself to the bitter fact of war between the country of his birth and the country of his adoption. The problem of the alien in time of war has vexed the nations of Europe and is vexing us. It must be met with firmness, justice and tact. A municipality may do much in a broad minded and sensible way to keep that problem from becoming acute within its limits.

8. FOOD PRODUCTION AND CONSERVATION

In the eighth place, no more valuable work has been done by American municipalities than that designed to promote the production of food and its conservation. In the spring of this year

at the suggestion of Mr. Hoover and others a very large number of our cities threw themselves wholeheartedly into the campaign for war garden and vacant lot cultivation. The ways in which municipalities aided in this work were multifarious indeed. It has already been mentioned that unused land owned by the city was thrown open to cultivation. In other cases the city either rented vacant land for gardens, or lent its support to secure the donation of the use of such lands. Some cities hired tractors to plow and harrow free of cost the lands which could not otherwise be gotten ready for planting, and in a few instances workhouse labor was employed for the purpose. Seeds were supplied at cost or even less, and water was sometimes supplied at half price for garden use. All the agencies of publicity at the city's disposal were put into play not only to persuade people to raise vegetables who had never done so before, but to put at their disposal expert advice, demonstration and assistance to enable them to carry out their good intentions. It is unnecessary to go further into detail regarding a matter so familiar to us all. It is enough to say that largely due to the aid rendered directly or indirectly by the cities the national food supply for 1917 was substantially increased, while the tired business man or laborer found in hoeing beans and potatoes his favorite outdoor sport. Similar efforts were made to aid the national movement for food conservation. Through the schools and other agencies municipalities helped the food administration by urging upon housekeepers the desirability of preserving and canning perishable products, and of conserving the supplies needed to feed the armies in the field.

9. DISTRIBUTION AND MARKETING OF FOOD

The problem of food production and conservation suggests the related work which forms the ninth type of municipal war activity, namely the work of helping in the marketing and distribution of food. This is a problem which we have not solved and to which the energies and ingenuity of city, state and nation will have to be applied. Some of the municipal efforts to cope with it are, however, worthy of mention. Some cities substantially increased their marketing facilities by putting at the disposal of farmers and producers municipal property, under adequate regulation, for market purposes. In this way the

producer and consumer were brought closer together to their mutual benefit. A few cities have adopted plans contemplating the establishment of what have been called "glut" markets, in which consumers who desire to purchase produce in large quantities for preserving or canning may do so at wholesale rates. It seems clear that in the future the American city is going to be called upon to face more directly and intelligently the problem of the distribution of the food supply.

10. TRANSPORTATION FACILITIES

A tenth form of war service which municipalities may render relates to the means of transportation. This is a problem which, of course, concerns more those cities or towns which are under the necessity of providing facilities for handling troops or war supplies. But there is no municipality which can afford to practice the false economy which would permit streets or roads or other transportation facilities to deteriorate. The avenues of traffic throughout the country should be kept efficient. Municipalities which, by reason of their location, become the centers for mobilization of troops or war supplies have taken more constructive measures to provide means of transportation. Registers have been made up of the owners of automobiles and other vehicles which could, in time of emergency, be placed at the service of the military department. Automobile squadrons have, in some cases, been organized out of those who are willing to serve in this way. There are many things which cities may do to aid in the prompt and efficient movement of soldiers and supplies.

11. HOME DEFENSE AND LAW ENFORCEMENT

It remains to consider in conclusion the efforts made by many cities to secure adequate home defense and effective law enforcement. Once more the individual city will find its activities determined by its size, location, racial characteristics and other considerations. Ever since the dawn of history when armies have gone forth to war the duty of protecting the forsaken walls and firesides has devolved upon those who, by reason of age or other disabilities, were not called into the active service in the ranks. Many American municipalities are facing just that problem. The result has been the organization in many places of home guards made up of men

who are not liable to federal service. These home guards are organized and drilled at such times as render unnecessary their withdrawal from their customary occupations. They are a sort of emergency police force or posse comitatus, available for the suppression of riots, disturbances or insurrections, and the guarding of strategic points such as bridges, tunnels, water supplies or cargoes of munitions or food. In some instances, as in New York and other metropolitan centers, they have been made adjuncts of the police force; but in other cases, their organization has been independent. Another measure for home defense has been the mobilizing and training of the police and fire departments for distinct war service. This has been done in several ways. By the organizing of police and fire reserves composed either of those not in active service who have had experience or of men who are applicants for positions in those departments, the effectiveness of the police and fire protection work has been well nigh doubled in some cases. The work of the two departments has been co-ordinated. The fire department has been trained to render "riot service" on the belief that a powerful stream of water is frequently as efficacious in dispersing an irresponsible mob as is the machine gun, and does the work with less danger to human life. The prevalence of incendiary fires has led a few municipalities to give the power to arrest to firemen so that suspicious characters at the scene of conflagration may be apprehended with the least possible delay. Stricter ordinances have been passed to control the possession and use of explosives; contractors, for example, being compelled to keep their stores of dynamite at night under the protection of armed guards. A vigorous, steady and just enforcement of the law is a great preventive of crime and disorder. It is needed now as never before. Co-operation with the federal authorities for the discovery and suppression of sedition, treason and sabotage is the duty of every municipality. Throughout the country and especially near the military encampments every available means should be employed for the stamping out of the evils of vice and intoxication. No efforts made by the national government for the control of the moral conditions surrounding the army posts can be so effective as to render unnecessary all the help

which the administrations of nearby municipalities can render. In short, in all these matters, no matter what the state or nation may attempt to do, on the city itself must rest a very large measure of responsibility for adequate home defense and protection, effective law enforcement and vice control.

Before leaving our discussion of the kinds of war work which municipalities have in the past, or may in the future undertake, it may be well to suggest that now, if never before, the American city must realize the necessity of subjecting every enterprise and activity to the most rigid tests of efficiency and economy. This is no time for slipshod work, partisan patronage, careless accounting and extravagance. In the city, as everywhere, retrenchment is the slogan. Waste is no longer merely foolish—it has become criminal. This does not mean that there must be a sharp reduction in the expenditures for necessary public work and the ordinary municipal undertakings. Municipal economy is sometimes to be judged perhaps not so much by the purposes for which the public funds are spent as by the value received for that expenditure. One of the luxuries which the American municipality must forego, as a war measure if for no other reason, is the luxury of paying its officers, its laborers, its contractors, the firm from which it purchases supplies, more than it receives in services or goods.

The second part of this paper, dealing with "Co-operation in Municipal War Work", will appear in the next issue of American Municipalities.

The council of Marshalltown is figuring on rebuilding their electric street lighting plant. The street lighting plant of Marshalltown has belonged to the city for a great many years, and a proposition to sell the same to the private company furnishing commercial lighting was recently defeated by the voters.

At a recent meeting of about sixty of the representative business men of the town of Eddyville, the question of whether they should sell their municipal light plant or arrange to re-build the same and bring it up to date was thoroughly discussed, and after all sides of the proposition were presented, the meeting voted that they would retain the plant and vote bonds for its improvement. The council will take the question up at an early meeting.

Municipal Electric Light Plants

T. J. Reeves, City Clerk, Hawarden, Iowa

Mr. Chas. E. Warsaw, Superintendent Water and Light of Ames, covered the subject of Municipal Electric Light Plants so thoroughly and efficiently in his able paper at the last annual meeting, that it seems to me there is little left to be said; unless we make a brief statement of the history and condition of our individual utility at home.

I fully agree with Mr. Warsaw, that municipalities should own and operate the light, as well as the water plant.

The waterworks in most small towns are a losing proposition, as they usually undertake to operate them at rates charged by the large cities, and the waste amounts to more than the profits, and loss is inevitable. In our own case, direct pressure is employed, necessitating continuous pumping by steam, which means great loss.

If we had a storage tank for water and pumped with electric motor connected with our electric system, our water receipts would show a profit. We have received many applications from Light and Power Corporations for the purchase of our Electric Light Plant, but none of them would consider the waterworks for a minute, proving that the light plant is the most desirable, and profitable.

The city of Hawarden has always owned and operated its light and water utility. The records show that when a small town, in June, 1893, a special election was held and bonds voted in the sum of eight thousand dollars for the purpose of building a water tank, and improving a small system of waterworks that had been started by the town council and some of the enterprising property owners.

Soon after the bond issue was authorized, it was suggested that the water tank be abandoned, and electric lights installed with the money. In 1894, a building was constructed, and the Electric Light and Water Department installed.

The electric department was operated nights only, until 1907, when the council felt that continuous service was necessary, and the plant was equipped for that purpose, and has given contin-

uous service since.

While the rates charged for light are not as low as some plants, they are not unreasonable according to the conditions we have to contend with, and will compare favorably with most private owned plants.

Hawarden was formerly a town adjoining the town of Calliope. Some twenty or more years ago, the two towns consolidated under the name of Hawarden, which was afterwards incorporated as the City of Hawarden. The population of about twenty five hundred people are scattered over the two original town-sites of three square miles, which makes it very expensive to run water mains and electric light lines, and with the water plant not paying a profit, the light plant brings in enough revenue to keep up repairs, extend the lines and mains, operating expenses, etc., and we only have to levy five mills tax to pay this utility for street lighting, and five mills for fire protection, street sprinkling and public fountains.

We believe that a water tank or stand pipe would save the city enough to make this utility pay all expenses and eliminate the necessity of any tax levy for street lighting, fire protection, etc.

Our people are proud of their Electric Light and Water Utility, and I feel certain would not want a private owned plant in either department.

We give a cooking and heating rate of five cents per kilowatt for the first seventy kilowatts used per month, and three cents per kilowatt for all over seventy kilowatts used per month, with a minimum charge of one dollar per month,

We have installed a number of ranges and grids under this rate which are giving splendid satisfaction, and we believe the time is rapidly approaching when the people will do most of their cooking by electricity.

By making a study of this method of cooking, the housewife will be able to do all of her baking and cooking as cheap as with any other kind of stove, and avoid the extra work of carrying in fuel, carrying out ashes, the dust, dirt and soot of

coal and wood stoves, besides the saving of weight of most of the foods cooked by this method is considerable.

During the warm seasons the absence of heat where electric stoves are used, is a great boon to the users, and makes the electric stove the most popular of any furniture in the average home.

Not long ago we heard an eminent speaker say that "there is enough coal in Alaska to heat the world for ages, although we cannot ship it from there, we will soon light and heat our homes and business places, run our trains and street cars, operate our factories and motors with Alaska coal transmitted to us in the form of electricity."

We hope the gentleman's prophesy will materialize very soon, when the fuel problem will be solved.

We have not adopted a power rate for the reason that we furnish power service from the same lines that other service is supplied from, and our rates are the same for lighting and power.

But our schedule is on a scale that permits large users to employ the current and everyone on the line pays the same rate.

Motors of five horse power are not permitted to operate after the light load starts evenings and we have no trouble in giving the best of service to all our patrons.

Our rates for electricity, excepting for cooking and heating, are as follows:

For the first twenty kilowatts used per month, 15 cents per kilowatt.

For the next eighty kilowatts used per month, 10 cents per kilowatt.

For the next one hundred kilowatts, 8 cents per kilowatt.

For the next one hundred kilowatts, 7 cents per kilowatt.

For the next two hundred kilowatts, 6 cents per kilowatt.

For the next five hundred kilowatts, 5 cents per kilowatt.

For all over one thousand kilowatts, 2½ cents per kilowatt.

We charge a minimum of one dollar per month for each meter, twenty five cents per month meter rent.

The city council are seriously considering a revision of these rates, making a lower rate to

(Continued on page 124)

Street Lighting Schedules

Street lighting schedules should receive more attention this year than ever before, on account of the coal shortage. A considerable saving can be made in most municipalities, first by choosing suitable schedules, and second, by burning the lights according to schedule.

There are three schedules in common use in Iowa; (1) the all night, (2) the moonlight, and (3) the moonlight midnight.

In the all-night schedule commonly used in the state, the lamps are lighted one half hour after sunset and extinguished one half hour before sunrise. Under this schedule the lamps burn about 4000 hours per year. This schedule is commonly used only in the larger cities of the state, although many of the smaller towns and cities have some of the most important lamps operated on the all night schedule.

Under the moonlight, or "Philadelphia"

schedule, beginning the fourth night after the new moon the lamps are extinguished one hour after moon rise, and lighted one hour before moon set, except when the moon is full, when they are not lighted. Under this schedule, the lamps burn 2000 hours per year.

Under the third schedule, the so called moonlight-midnight, the Philadelphia schedule is followed until midnight when all lights are extinguished. Lamps burn 1000 hours per year under this schedule. In many towns the lights are turned off at eleven o'clock instead of midnight.

Below are given the all night and moonlight schedules. These schedules are based on standard time and are substantially correct for the central part of the state, with possible variations of 15 minutes in the extreme eastern or western parts of the state.

January, 1918

Date	All Night Schedule		Moonlight Schedule	
	On	Off	On	Off
1	5 30	7 05	5 30	10 30
2	5 30	7 05	5 30	11 25
3	5 30	7 05	5 30	Morn
4	5 30	7 05	5 30	12 25
5	5 30	7 05	5 30	1 25
6	5 35	7 05	5 35	2 25
7	5 35	7 05	5 35	3 30
8	5 35	7 05	5 35	4 30
9	5 35	7 05	5 35	5 30
10	5 35	7 05	5 35	6 30
11	5 40	7 05	5 40	7 05
12	5 40	7 05	5 40	7 05
13	5 40	7 05	5 40	7 05
14	5 40	7 05	6 40	7 05
15	5 40	7 05	7 55	7 05
16	5 40	7 00	9 10	7 00
17	5 45	7 00	10 20	7 00
18	5 45	7 00	11 20	7 00
19	5 45	7 00	Morn	7 00
20	5 45	7 00	12 40	7 00
21	5 50	7 00	1 50	7 00
22	5 50	7 00	2 55	7 00
23	5 50	7 00	3 50	7 00
24	5 55	6 55	4 45	6 55
25	5 55	6 55	Off all	night
26	5 55	6 55	" "	" "
27	5 55	6 55	" "	" "
28	6 00	6 55	6 00	8 15
29	6 00	6 55	6 00	9 15
30	6 00	6 55	6 00	10 15
31	6 00	6 50	6 00	11 10

February, 1918

Date	All Night Schedule		Moonlight Schedule	
	On	Off	On	Off
1	6 00	6 50	6 00	Morn
2	6 00	6 50	6 00	12 10
3	6 00	6 50	6 00	1 10
4	6 00	6 50	6 00	2 15
5	6 05	6 50	6 05	3 15
6	6 05	6 45	6 05	4 15
7	6 05	6 45	6 05	5 15
8	6 10	6 45	6 10	6 05
9	6 10	6 45	6 10	6 45
10	6 10	6 40	6 10	6 40
11	6 15	6 40	6 15	6 40
12	6 15	6 40	6 45	6 40
13	6 15	6 40	8 00	6 40
14	6 20	6 35	9 15	6 35
15	6 20	6 35	10 30	6 35
16	6 20	6 35	11 40	6 35
17	6 25	6 35	Morn	6 35
18	6 25	6 30	12 45	6 30
19	6 25	6 30	1 45	6 30
20	6 25	6 30	2 40	6 30
21	6 25	6 30	3 25	6 30
22	6 25	6 25	4 05	6 25
23	6 30	6 25	Off all	night
24	6 30	6 25	" "	" "
25	6 30	6 20	" "	" "
26	6 30	6 20	6 30	8 05
27	6 30	6 20	6 30	9 05
28	6 35	6 15	6 35	10 00

March, 1918

Date	All Night Schedule		Moonlight Schedule	
	On	Off	On	Off
1	6 35	6 15	6 35	11 00
2	6 35	6 15	6 35	12 00
3	6 35	6 15	6 35	Morn
4	6 40	6 15	6 40	1 05
5	6 40	6 10	6 40	2 05
6	6 40	6 05	6 40	3 00
7	6 40	6 05	6 40	3 55
8	6 40	6 05	6 40	4 40
9	6 45	6 05	6 45	5 20
10	6 45	6 00	6 45	6 00
11	6 45	6 00	6 45	6 00
12	6 45	6 00	6 45	6 00
13	6 45	5 55	6 45	5 55
14	6 50	5 55	8 05	5 55
15	6 50	5 55	9 20	5 55
16	6 50	5 50	10 30	5 50
17	6 50	5 50	11 35	5 50
18	6 50	5 50	Morn	5 50
19	6 55	5 50	12 35	5 50
20	6 55	5 45	1 25	5 45
21	6 55	5 45	2 05	5 45
22	6 55	5 40	2 40	5 40
23	7 00	5 40	3 10	5 40
24	7 00	5 40	3 35	5 40
25	7 00	5 40	3 50	5 40
26	7 00	5 35	Off all	night
27	7 00	5 35	" "	" "
28	7 05	5 35	" "	" "
29	7 05	5 30	7 05	9 55
30	7 05	5 30	7 05	10 55
31	7 05	5 30	7 05	11 55

April, 1918

Date	All Night Schedule		Moonlight Schedule	
	On	Off	On	Off
1	7 05	5 30	7 05	Morn
2	7 10	5 25	7 10	12 25
3	7 10	5 25	7 10	1 45
4	7 10	5 20	7 10	2 35
5	7 10	5 20	7 10	3 15
6	7 10	5 20	7 10	3 55
7	7 15	5 20	7 15	4 25
8	7 15	5 15	7 15	5 15
9	7 15	5 15	7 15	5 15
10	7 15	5 15	7 15	5 15
11	7 15	5 10	7 15	5 10
12	7 20	5 10	8 10	5 10
13	7 20	5 10	9 20	5 10
14	7 20	5 05	10 20	5 05
15	7 20	5 05	11 15	5 05
16	7 20	5 05	Morn	5 05
17	7 25	5 00	12 00	5 00
18	7 25	5 00	12 40	5 00
19	7 25	5 00	1 10	5 00
20	7 25	4 55	1 40	4 55
21	7 25	4 55	2 05	4 55
22	7 30	4 55	2 30	4 55
23	7 30	4 50	2 50	4 50
24	7 30	4 50	Off all	night
25	7 30	4 50	" "	" "
26	7 35	4 50	" "	" "
27	7 35	4 45	7 35	9 50
28	7 35	4 45	7 35	10 45
29	7 35	4 45	7 35	11 40
30	7 35	4 45	7 35	Morn

May, 1918

Date	All Night Schedule		Moonlight Schedule	
	On	Off	On	Off
1	7 35	4 45	7 35	12 30
2	7 35	4 45	7 35	1 35
3	7 40	4 40	7 40	1 55
4	7 40	4 40	7 40	2 25
5	7 40	4 40	7 40	2 55
6	7 40	4 35	7 40	3 25
7	7 40	4 35	7 40	4 00
8	7 45	4 35	7 45	4 35
9	7 45	4 30	7 45	4 30
10	7 45	4 30	7 45	4 30
11	7 45	4 30	8 00	4 30
12	7 45	4 30	9 00	4 30
13	7 50	4 30	9 55	4 30
14	7 50	4 30	10 35	4 30
15	7 50	4 25	11 10	4 25
16	7 50	4 25	11 40	4 25
17	7 50	4 25	Morn	4 25
18	7 55	4 25	12 05	4 25
19	7 55	4 25	12 30	4 25
20	7 55	4 25	12 55	4 25
21	7 55	4 20	1 20	4 20
22	7 55	4 20	1 45	4 20
23	8 00	4 20	2 15	4 20
24	8 00	4 20	Off all	night
25	8 00	4 20	" "	" "
26	8 00	4 20	" "	" "
27	8 00	4 20	8 00	10 30
28	8 00	4 20	8 00	11 15
29	8 00	4 20	8 00	11 55
30	8 00	4 20	8 00	Morn
31	8 00	4 20	8 00	12 25

June, 1918

Date	All Night Schedule		Moonlight Schedule	
	On	Off	On	Off
1	8 05	4 20	8 05	1 00
2	8 05	4 20	8 05	1 30
3	8 05	4 20	8 05	2 00
4	8 05	4 20	8 05	2 30
5	8 05	4 20	8 05	3 10
6	8 10	4 20	8 10	3 45
7	8 10	4 20	8 10	4 20
8	8 10	4 20	8 10	4 20
9	8 10	4 20	8 10	4 20
10	8 10	4 20	8 30	4 20
11	8 10	4 20	9 10	4 20
12	8 10	4 15	9 40	4 20
13	8 10	4 15	10 10	4 20
14	8 10	4 15	10 35	4 20
15	8 10	4 15	11 00	4 20
16	8 10	4 15	11 20	4 20
17	8 15	4 15	11 45	4 20
18	8 15	4 15	Morn	4 20
19	8 15	4 15	12 15	4 20
20	8 15	4 15	12 45	4 20
21	8 15	4 15	1 20	4 20
22	8 15	4 15	Off all	night
23	8 15	4 15	" "	" "
24	8 15	4 15	" "	" "
25	8 15	4 15	8 15	9 45
26	8 15	4 15	8 15	10 30
27	8 15	4 15	8 15	11 05
28	8 15	4 15	8 15	11 35
29	8 15	4 15	8 15	Morn
30	8 15	4 15	8 15	12 05

July, 1918

Date	All Night Schedule		Moonlight Schedule	
	On	Off	On	Off
1	8 15	4 15	8 15	12 25
2	8 15	4 15	8 15	1 05
3	8 15	4 15	8 15	1 40
4	8 15	4 15	8 15	2 25
5	8 15	4 15	8 15	3 10
6	8 15	4 15	8 15	3 55
7	8 15	4 15	8 15	4 15
8	8 15	4 20	8 15	4 20
9	8 15	4 20	8 15	4 20
10	8 15	4 20	8 15	4 20
11	8 10	4 20	8 30	4 20
12	8 10	4 20	9 00	4 20
13	8 10	4 20	9 30	4 20
14	8 10	4 25	9 50	4 25
15	8 10	4 25	10 15	4 25
16	8 10	4 25	10 45	4 25
17	8 10	4 25	11 15	4 25
18	8 10	4 30	11 55	4 30
19	8 05	4 30	Morn	4 30
20	8 05	4 30	12 45	4 30
21	8 05	4 30	1 40	4 30
22	8 05	4 30	Off all	night
23	8 05	4 35	" "	" "
24	8 05	4 35	" "	" "
25	8 05	4 35	8 05	9 30
26	8 05	4 35	8 05	10 05
27	8 00	4 35	8 00	10 35
28	8 00	4 40	8 00	11 10
29	8 00	4 40	8 00	11 45
30	8 00	4 40	8 00	Morn
31	8 00	4 40	8 00	12 25

August, 1918

Date	All Night Schedule		Moonlight Schedule	
	On	Off	On	Off
1	7 55	4 40	7 55	1 10
2	7 55	4 40	7 55	2 00
3	7 55	4 40	7 55	3 00
4	7 55	4 45	7 55	4 00
5	7 50	4 45	7 50	4 45
6	7 50	4 45	7 50	4 45
7	7 50	4 45	7 50	4 45
8	7 50	4 45	7 50	4 45
9	7 45	4 50	7 45	4 50
10	7 45	4 50	7 45	4 50
11	7 45	4 50	8 15	4 50
12	7 45	4 50	8 45	4 50
13	7 40	4 50	9 20	4 50
14	7 40	4 55	9 55	4 55
15	7 40	4 55	10 35	4 55
16	7 40	4 55	11 25	4 55
17	7 35	4 55	Morn	4 55
18	7 35	4 55	12 30	4 55
19	7 35	5 00	1 30	5 00
20	7 35	5 00	2 35	5 00
21	7 30	5 00	Off all	night
22	7 30	5 00	" "	" "
23	7 30	5 00	" "	" "
24	7 30	5 05	7 30	9 10
25	7 25	5 05	7 25	9 45
26	7 25	5 05	7 25	10 35
27	7 25	5 05	7 25	11 10
28	7 20	5 05	7 20	Morn
29	7 20	5 10	7 20	12 00
30	7 20	5 10	7 20	1 05
31	7 20	5 10	7 20	2 00

September, 1918

Date	All Night Schedule		Moonlight Schedule	
	On	Off	On	Off
1	7 15	5 10	7 15	2 55
2	7 15	5 10	7 15	3 55
3	7 15	5 10	7 15	4 45
4	7 15	5 15	7 10	5 15
5	7 10	5 15	7 10	5 15
6	7 05	5 15	7 05	5 15
7	7 05	5 15	7 05	5 15
8	7 05	5 15	7 05	5 15
9	7 00	5 20	7 20	5 20
10	7 00	5 20	7 55	5 20
11	7 00	5 20	8 35	5 20
12	6 55	5 20	9 20	5 20
13	6 55	5 20	10 10	5 20
14	6 55	5 20	11 10	5 20
15	6 50	5 25	Morn	5 25
16	6 50	5 25	12 15	5 25
17	6 50	5 25	1 25	5 25
18	6 45	5 25	2 40	5 25
19	6 45	5 30	Off all	night
20	6 45	5 30	" "	" "
21	6 40	5 30	" "	" "
22	6 40	5 30	6 40	8 20
23	6 40	5 30	6 40	9 05
24	6 35	5 35	6 35	9 45
25	6 35	5 35	6 35	10 50
26	6 35	5 35	6 35	11 50
27	6 30	5 35	6 30	Morn
28	6 30	5 40	6 30	12 50
29	6 30	5 40	6 30	1 50
30	6 30	5 40	6 30	2 55

October, 1918

Date	All Night Schedule		Moonlight Schedule	
	On	Off	On	Off
1	6 25	5 40	6 25	3 50
2	6 25	5 40	6 25	4 50
3	6 25	5 45	6 25	5 45
4	6 20	5 45	6 20	5 45
5	6 20	5 45	6 20	5 45
6	6 20	5 45	6 20	5 45
7	6 15	5 45	6 15	5 45
8	6 15	5 50	6 30	5 50
9	6 15	5 50	7 15	5 50
10	6 10	5 50	8 05	5 50
11	6 10	5 50	9 00	5 50
12	6 10	5 50	10 05	5 50
13	6 05	5 55	11 10	5 55
14	6 05	5 55	Morn	5 55
15	6 05	5 55	12 15	5 55
16	6 00	5 55	1 25	5 55
17	6 00	5 55	2 40	5 55
18	6 00	6 00	3 55	6 00
19	6 00	6 00	Off all	night
20	5 55	6 00	" "	" "
21	5 55	6 00	5 55	7 45
22	5 55	6 00	5 55	8 35
23	5 50	6 05	5 50	9 35
24	5 50	6 05	5 50	10 40
25	5 50	6 05	5 50	11 45
26	5 50	6 10	5 50	Morn
27	5 45	6 10	5 45	12 45
28	5 45	6 10	5 45	1 50
29	5 45	6 15	5 45	2 45
30	5 45	6 15	5 45	3 45
31	5 40	6 15	5 40	4 40

November, 1918

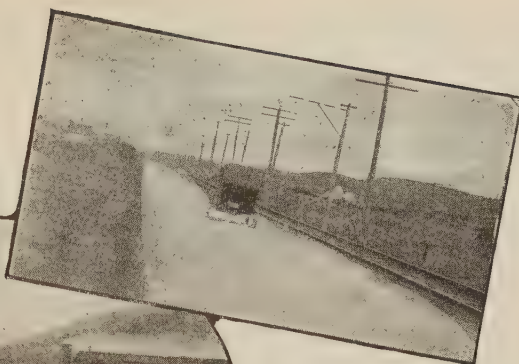
Date	All Night Schedule		Moonlight Schedule	
	On	Off	On	Off
1	5 40	6 15	5 40	6 15
2	5 40	6 15	5 40	6 15
3	5 35	6 15	5 35	6 15
4	5 35	6 15	5 35	6 15
5	5 35	6 20	5 35	6 20
6	5 35	6 20	6 05	6 20
7	5 35	6 20	6 55	6 20
8	5 30	6 20	7 55	6 20
9	5 30	6 25	9 00	6 25
10	5 30	6 25	10 05	6 25
11	5 30	6 25	11 10	6 25
12	5 30	6 25	Morn	6 25
13	5 30	6 30	12 20	6 30
14	5 25	6 30	1 30	6 30
15	5 25	6 30	2 45	6 30
16	5 25	6 30	3 55	6 30
17	5 25	6 35	Off all	night
18	5 25	6 35	" "	" "
19	5 25	6 35	" "	" "
20	5 25	6 35	5 20	8 25
21	5 20	6 40	5 20	9 30
22	5 20	6 40	5 20	10 35
23	5 20	6 40	5 20	11 45
24	5 20	6 40	5 20	Morn
25	5 20	6 45	5 20	12 35
26	5 20	6 45	5 20	1 35
27	5 20	6 45	5 20	2 35
28	5 20	6 45	5 20	3 30
29	5 20	6 45	5 20	4 30
30	5 20	6 45	5 20	5 30

December, 1918

Date	All Night Schedule		Moonlight Schedule	
	On	Off	On	Off
1	5 20	6 50	5 20	6 50
2	5 20	6 50	5 20	6 50
3	5 20	6 50	5 20	6 50
4	5 20	6 50	5 20	6 50
5	5 20	6 50	5 50	6 50
6	5 20	6 50	6 55	6 50
7	5 20	6 55	7 55	6 55
8	5 20	6 55	9 05	6 55
9	5 20	6 55	15 15	6 55
10	5 20	6 55	11 25	6 55
11	5 20	6 55	Morn	6 55
12	5 20	7 00	12 25	7 00
13	5 20	7 00	1 40	7 00
14	5 20	7 00	2 50	7 00
15	5 20	7 00	4 00	7 00
16	5 20	7 00	Off all	night
17	5 20	7 00	" "	" "
18	5 20	7 00	" "	" "
19	5 25	7 00	5 25	8 15
20	5 25	7 05	5 25	9 20
21	5 25	7 05	5 25	10 20
22	5 25	7 05	5 25	11 25
23	5 25	7 05	5 25	Morn
24	5 25	7 05	5 25	12 20
25	5 25	7 05	5 25	1 20
26	5 25	7 05	5 25	2 20
27	5 25	7 05	5 25	3 15
28	5 25	7 05	5 25	4 15
29	5 25	7 05	5 25	5 15
30	5 25	7 05	5 25	6 15
31	5 25	7 05	5 25	7 05



One of the many streets in Coppercliff, Ont., treated with "Tarvia-B," 1917



Sudbury-Coppercliff Road, Ont., three and a half miles long. Resurfaced in 1916 with three inch "Tarvia-X" top, three coat method



Applying "Tarvia X," Sudbury-Coppercliff Road, Ontario, 1917

Frost-proof Roads in the "Frozen North"

Winter temperatures in the Algona district in northern Ontario are so severe that few road-making materials can withstand them.

Tarvia does!

Under the severest tests, Tarvia has proved itself frost-proof, mud-proof and traffic proof, regardless of long continued zero weather or other equally rigorous climatic conditions.

The Sudbury-Coppercliff road pictured above is three and a half miles long. It carries a very heavy wagon traffic. It has a three inch Tarvia surface, making it impervious to the wear of

traffic, the effects of the severe northern winter, and to the equally trying spring thaw when ordinary roads soon become impassable.

Tarvia is a coal tar preparation shipped in barrels or tank-cars.

It is made in several grades for varying road conditions.

"Tarvia A" is applied hot for resurfacing a road already built.

"Tarvia B." is used cold. It sinks readily into the road surface, yet is strong enough to bind it firmly together. It is the cheapest form of road maintenance yet invented.

"Tarvia X" is to be used in constructing a new road.

Macadam roads treated with Tarvia are durable, smooth, mudless, dustless, frost-proof and water-proof.

Used in place of water

as a binder, it makes a lasting, resilient road surface that will not grind to powder under automobile or horse-drawn traffic.

Booklets describing the Tarvia treatments free upon request.

Tarvia

The *Barrett* Company

New York Chicago Philadelphia
Birmingham Kansas City
THE BARRRETT CO., Limited:
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Boston St. Louis Cleveland
Minneapolis Nashville
Montreal Toronto
Halifax, N. S.

Cincinnati Pittsburgh Detroit
Salt Lake City Seattle Peoria
Winnipeg Vancouver
Sydney, N. S.



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Extracts From Rate Research

INVESTMENT AND RETURN

City of Bluefield v. Bluefield Waterworks and Improvement Company, Proceeding to Determine Reasonable Rates for Water service. Decision of the West Virginia Public Service Commission, Increasing Rates, April 24, 1917.

VALUATION—In discussing the determination of the fair present value of the property upon which to base reasonable rates the Commission said:

“For the enlightenment of the Commission, three bases or methods of arriving at such valuation have been presented, as follows: (1st) Investment plus deficits; (2nd) reproduction new less depreciation; and (3rd) net investment as shown by the books of the company.

“The first bases of valuation, investment plus deficits, is predicated on the theory that a public utility is entitled to earn a fair return on the amount of capital invested in its utility business, and, in the event it fails to so realize such return, the difference between what it would be reasonably presumed to be entitled to earn, and the amount which it did actually earn, should be added to the amount it had invested in its property used and useful in the public service. It occurs to the Commission that this method is seriously objectionable for the reason that it deals exclusively with the past history of the company, rather than the present and the future. It could not be said in fairness to a utility, that it should be deprived of a fair return on a proper valuation of its property used in the public service at the present time because of excessive earnings it may have realized in the past, and by the same process of reasoning it could hardly be fair to the present consumers to impose an excessive rate to cover deficits by reason of inadequate charges or from other causes in the past.

“The second basis of valuation proposed, and to which most attention has been given in the preparation of these causes, is ‘reproduction new less depreciation’. This method is frequently adopted in arriving at the value of the property of a public utility for rate-making purposes, and in

this case both the water company and the city have evidently proceeded on the theory that the Commission would adopt this method in arriving at a valuation of applicant company’s property. . .

“The third method presented is that of ‘net investment’ as shown by the books of the water company. The books of the company show a total gross investment, since its organization, of \$407,882, and that there has been charged off for depreciation from year to year the total sum of \$83,445, leaving a net investment of \$324,427.

“The usual argument that this basis of valuation (net investment) should not be used for rate-making purposes because of improperly kept accounts or lack of knowledge of the early history of the property, cannot be used with much effect in this proceeding. From an examination of the books . . . it appears that the records of the company have been remarkably well kept and preserved. It therefore seems that when a plant is developed under these conditions the net investment, which, of course, means the total gross investment less depreciation, is the very best basis of valuation for rate-making purposes, and that the other methods, above referred to, should be used only when it is impossible to arrive at the true investment. There, after making due allowance for capital necessity for the conduct of the business and considering the plant as a going concern, it is the opinion of the Commission that the fair value for the purpose of determining reasonable and just rates in this case of the property of the applicant company, used by it in the public service of supplying water to the city of Bluefield and its citizens, is the sum of \$360,000, which sum is hereby fixed and determined by the Commission to be the fair present value for the said purpose of determining the reasonable and just rates in this case.”

RATE OF RETURN—The Commission finds that the company should be allowed to earn about 8 per cent on the investment.

“This will allow it, in addition to 6 per cent, 2 per cent to cover depreciation and the risk incident to the business.”



MARSHALLTOWN, IOWA

Hans Madsen, Superintendent, referring to a 4,000,000 gallon pump installed by this Company, says:

"We are highly pleased indeed. The pump performs far beyond our expectations and the guarantee, and the engine works perfectly."

Write for Bulletin 1637

Allis-Chalmers Manufacturing Co.

Milwaukee, Wisconsin

CONCRETE FOR PERMANENCE

Roads that last

When you plan a public highway, consider first cost and immediate service—but consider the future too.

The first cost of a concrete road is a little more than some types—but it gives better service from the start—and lasts. Costs for maintenance is far lower than for any other type.

Long time bonds are a financial crime when issued to pay for a macadam road that has to be continually repaired and entirely rebuilt after seven years. Quite a different matter to issue 10 or 15-year bonds to pay for the concrete road which is certain to give good service for at least 20 years.

Atlas Road Building Service

Our Highway Department will gladly assist in preparing plans, proposals and cost estimates and will arrange for inspection if desirable. Send for our free book "Concrete Highway Construction."

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RATES FIXED BY CONTRACT—In the course of this proceeding, the city entered objection to the company's practice of requiring the customers to install service pipes. The company took the position that the Commission was without jurisdiction in the matter because the terms of the company's franchise granted it the right to construct its system "upon any terms and conditions" that may be agreed upon by the company and its patrons, and, in accordance with such franchise, contracts have been entered into expressly providing for the installation of service pipes by the customers. The Commission says:

"No difficulties whatever would be encountered in disposing of this question were it merely a matter of fixing a rate, as the supreme court in the case of *Benwood v. Public Service Commission*, 75 W. V. 127, L. R. A. 1915C, 261, 83 S. E. 295, in construing Sections 4 and 5 of Chapter 9 of the Acts of the Legislature of 1913 creating the Public Service Commission, held that, notwithstanding the grant and acceptance of a franchise wherein certain rates were fixed, creating a contract between the water company and the city, the rates thereby fixed were nevertheless cognizable for revision by the Public Service Commission, under the broad powers delegated thereto, unless prior to the delegation of these powers the legislature had expressly delegated power to the city which authorized it to contract inviolable for the rates mentioned in the franchise for the period stated therein. The Commission, recognizing its right to disregard contracts, has, in a number of cases since the one above referred to, on proper showing, permitted a change from the contract rate. . . .

"But, as has been said, the cause of complaint here is one of practice, and not a rate."

The Commission points out that it has uniformly required utilities to install these service lines and adds:

"Aside from this it would seem that the water company could not in good conscience ask the Commission to change its general rule in order to preserve its contracts with the water consumers, and at the same time, in its application to increase its rates for water, ask the Commission to ignore the provisions of its franchise from the city, providing for a maximum rate of 25 cents per thousand gallons by meter and

\$30.00 per hydrant for fire protection.

"The Commission is therefore of the opinion, notwithstanding the contract, that inasmuch as it has adopted the rule that utilities should install and maintain the service lines from their mains to the property lines, and in order to preserve a uniform practice among utilities in this regard, the company should cease and desist from the practice of requiring consumers to pay for the installation and maintenance of the lateral pipes from its mains to the property lines; especially is this true since the additional expense to the water company is considered in fixing the rates hereinafter announced."

Municipal Accounting

(Continued from page 114)

feats of legislative prestidigitation as for instance Chapter 131, 37th G. A., relating to levy for fire department maintenance.

It would probably be necessary to provide for special levies for bond fund and certain other funds such as city hall and city buildings, hospital, bridge, etc. which come under the direct control of the city council as well as for the independent divisions of city government, such as library, parks, and policemen's pension and firemen's pension funds.

In conclusion I would suggest that this matter be taken up with the legislative committee which would properly have charge of questions relating to changes in the statutes.

National Municipal League

(Continued from page 105)

May we add that we appreciate very sincerely the opportunity afforded us by the National Municipal League and Mr. Woodruff, its secretary, for the calling of this conference on state municipal leagues in connection with the meeting of the national organizations interested in better city government; and may we add that in the arranging of our own program for our sessions at next year's meeting of the National Municipal League, we should be glad indeed if you would consider the possibilities for good results to be gained thru the holding of one joint session of your organization with the Conference on State Leagues of Municipalities.

Classified Advertisements

Officers of members of the League of Iowa Municipalities may run one advertisement each month free of cost.

FOR SALE—One Seagraves horse drawn hose wagon and fire harness, same as new, for sale at less than half price. Address, J. O. Gregg, city manager, Iowa Falls, Iowa.

FOR SALE—All brass Artesian well cylinder 5¼x36 inches with bronze ball valves and 300 feet of 3½ inch Octegan selected ash wood rods fitted with dropped forge sucker rod couplings, suitable for pumping from deep well, using steam head or lever stroke. For particulars, address G. F. Taylor, city clerk, Stuart, Iowa.

FOR SALE—All brass Artesian well cylinder 3¼ in. x 48 in. with bronze ball valves and 350 ft. of 3½ in. number 1 wood rods and couplings, suitable for pumping from a deep well using steam head or lever stroke. For particulars, address, G. F. Taylor, City Clerk, Stuart, Iowa. 107

FOR SALE—Cities wanting or needing a milk laboratory apparatus can get a bargain by addressing, John Berwald, Mayor, Davenport, Iowa. 107

WANTED—Second hand 10,000 to 16,000 gallon storage tank for gasoline. Lock box 235 Sheldon, Ia.

FOR SALE—A number of good gas meters. Will be sold at a bargain. W. D. Hanna, Clerk, Winfield, Iowa. 57

FOR SALE—Having recently made arrangements with a power company to furnish electricity the town of Coggon has the following for sale. 1-28HP Bates & Edmonds double cylinder gasoline engine. 1-125 Volt 120 amp. continuous load D. C. generator, 1200 R M P. 1-55 volt 25 amp. continuous load D C generator, 1400 R M P. 1 fully equipped switch board. Everything in good condition. For information write F. W. Lindahl Town Clerk. 106

FOR SALE—The city of Shenandoah, Ia., has for sale. 1 Seagraves Hose Wagon in extra good condition fully equipped. 1 Hale Hose Wagon (new) built especially for Tournament purposes 2 Sets of Hale harness and hangers nearly new. 1 Hand drawn ladder truck with ladders. 2 Hand drawn hose carts in excellent condition. Also will sell one span of fire horses, (thoroughbreds) young and well broken for fire service. Address inquiries to C. M. Conway, city clerk. 106

FOR SALE—Having recently made arrangements with a neighboring town to furnish electric current for lighting and power. The town of Shelby offers for sale a Gas Lighting Plant, complete in good running order will sell at a bargain, as the town has no use for it, address all communications to town clerk of Shelby, Iowa.

FOR SALE—The incorporated town of Milford has for sale 1 Davis carbide feed acetylene gas plant in perfect condition. Model B generator 75 pound capacity. 23 burners with fixtures. 150 feet ½ inch pipe. Will sell at a sacrifice. For information write J. E. Shelledy Clerk, Milford, Iowa.

FOR SALE—Having recently installed a water works system the town of Lowden offers for sale a chemical engine in good condition. For particulars write Richard Parr, Town Clerk, Lowden, Iowa. 116

FOR SALE—85 pieces, 12 feet lengths, 16 inch cast iron pipe; 22 pieces about 21 feet length, 4 inch, extra heavy galvanized with couplings; 8 pieces about 20 feet lengths, 4 inch extra heavy galvanized without couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized with couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized without couplings; 150 feet, 6 inch black pipe; one 20 inch valve, hub end; one 16 inch valve, hub end; one 20 inch sleeve; one 20 inch x 20 inch x 16 inch T; eight 4 inch x 4 inch x 3 inch T, hub; twenty 4 inch valves threaded; ten 3 inch valves threaded; ten 4 inch crosses; ten 4 inch Ts; six 3 inch dresser couplings; thirty 4 inch dresser couplings; ten 4 inch saddles and double straps; ten 4 inch to 3 inch galvanized extra heavy reducers; and eight Cook strainers No. 20. The above is all new and will be sold at a bargain. John I. Bell, commissioner, Marshalltown, Iowa. 917

FOR SALE—One Olson Standard Paving Brick Rattler, nearly new, Price \$75.00. This rattler has been used for about a mile of paving and is in good shape. If interested write P. H. Jones, Clerk, Manning, Iowa.

FOR SALE—The city of Colfax, Iowa, offers the following: Two National steam pumps capacity 500 gallon per minute equipped with Mason Regulators. Two boilers tested to carry 85 pound pressure. One Cameron pump 5 H. P. One National pump 5 H. P. This equipment is in good condition. Will sell all or part. If interested write for further particulars or call and inspect.—H. F. Cassidy, City Clerk.

FOR SALE—18 horse power Watrous fire engine, good as new, complete with 30 foot 4 inch suction hose, same being replaced by high pressure water system. Write or wire at once, for full particulars. Russell E. Whipple, chief, fire department. Lehigh, Iowa.

FOR SALE—The city of Fairfield, Iowa has to offer for sale an 8x8, single stage, Deleval Centrifugal pump and 25 H. P. motor in connection, both in practically new condition. The speed of pump is 1800 revolutions per minute. Address for particulars, City Clerk, Box 2 Fairfield, Iowa.

FOR SALE—Two 2-horse double 50-gallon tanks and one either 2-horse or hand drawn 100 gallon chemical fire engine. Champion make, and in good condition. Inquire Chief Kellogg, fire station No. 1 Sioux City.

FOR SALE—Bates & Edmonds 35 H. P. upright engine, gasoline or kerosene, 2 cylinder, all complete, in good shape. Have installed transmission line current and have no use for engine. Address Percy Lyon, Clerk, Dike, Iowa. 617

FOR SALE—Having completed arrangements with a neighboring city to furnish our electric current we offer the following at a bargain. One 25 horse power special electric Fairbanks Morse Engine. One 20 K. W. Peerless Generator. 60 Amp. hour battery and swith board instruments. Everything in good condition. Address Town Clerk, Hudson, Iowa

PAINTING—If you have water tower or anything in similar line you want painted, write W. O. Potter, Fredricksburg, Iowa

Muscatine Mayor Talks Coal

(Continued from page 107)

delivered at Ottumwa, and the price established by the Federal trade authorities recently was 200 per cent greater than they formerly paid.

This committee, consisting of the governor and three mayors, who are representing 99½ per cent of the citizens of Iowa, have taken it upon themselves to see that the people get cheaper coal, and I want to say that it is a committee of fighters, and that they are going to fight on until they accomplish their aim.

Service Clauses in Public Utility Franchises

(Continued from page 108)

the system. These points will usually be at some distance from the pumping station, so require the use of recording pressure gauges for keeping track of the service pressure. Finally water must be pumped in sufficient quantity and sufficient pressure for use in case of fire. Water for fighting a fire must be supplied promptly, so the allowable time between the turning in of a fire alarm and the supplying of the required number of fire streams should be specified. The fulfilling of this requirement can be determined only by means of tests made at frequent irregular periods and without notice to those operating the pumping station. The pressure should be recorded by means of gauges placed at important points on the system.

ELECTRIC POWER SERVICE

Since the light given by an electric lamp is dependent on the voltage at which electric power is supplied the voltage regulation is of prime importance. The allowable voltage variation at the costumer's premises should therefore be specified. Other uses for electric power than for lamps usually demand less exact voltage regulation, so the regulation required for a lighting load is usually satisfactory for other classes of service. A common requirement is that the voltage be held within 6% of the minimum. In many cities this requirement would be too high for the business portion.

When alternating current electric power is used to drive the motors of factories it is important that the frequency of the supply be kept constant, as this determines the speed of the motors and consequently the output of the factories. A

ten per cent reduction in the frequency might therefore be a serious thing. A variation of frequency of not more than 5% would be a satisfactory requirement.

GAS SUPPLY

Gas was originally used almost entirely for lighting purposes and therefore the candle power standard was adopted. This specifies that when burned in a fish tail jet at the rate of 5 cubic feet per hour the light intensity shall be 16 candles. Now that mantle burners are used almost exclusively for supplying light the candle power standard is practically obsolete and the heat standard is the more logical to adopt. The common standard is in the neighborhood of 550 British Thermal Units per cubic foot. The use of mantle burners makes it desirable to specify the pressure regulation. This is because the light from such a burner varies greatly with the gas pressure.

The foregoing illustrations will serve to define the title to this paper and indicate why such clauses should be a part of every public utility franchise. It should be understood, however, that rigid specifications as to quality of product or service usually increase the cost. Care should therefore be taken that the quality demanded is not better than the service warrants, or perchance the price may be so high that there will be few consumers who can afford to pay it.

Municipal Electric Light Plants

(Continued from page 116)

start with, and the elimination of the meter rental. I have had opportunity to observe the workings of a number of electric light plants in Iowa during the past few years, and I have not found many giving as good continuous service, and many that are not in it with the Hawarden plant. You may say "we are blowing our own horn" but we have got the service, and enjoy it, and we don't care who knows it.

The council of Clinton will hold a meeting soon after the first of the year to consider the new franchise asked for by the Local Water Company. Clinton is one of the few cities in the state of Iowa that does not seem to be in favor of municipal ownership of the waterworks system.



Notice the Large Steel Riser

DES MOINES STEEL TANKS

WITH THE

LARGE STEEL RISER

**HAVE SOLVED THE PROBLEM OF
MUNICIPAL WATER STORAGE**

NO FREEZING IN WINTER
FROST CASE NECESSARY
SEDIMENT IN MAINS
TROUBLE TO MAINTAIN

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**YOUR INQUIRIES WILL RECEIVE
OUR PROMPT ATTENTION**

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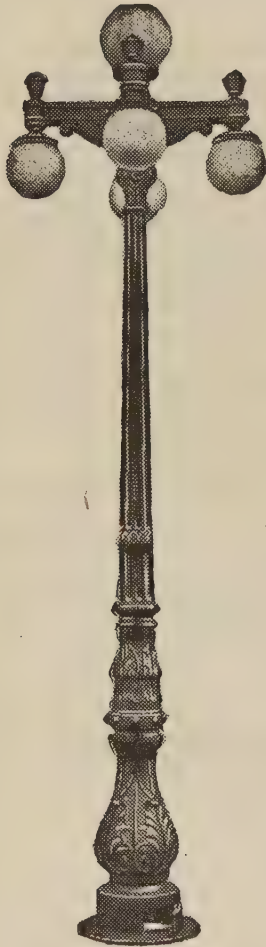
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Marshalltown, Iowa

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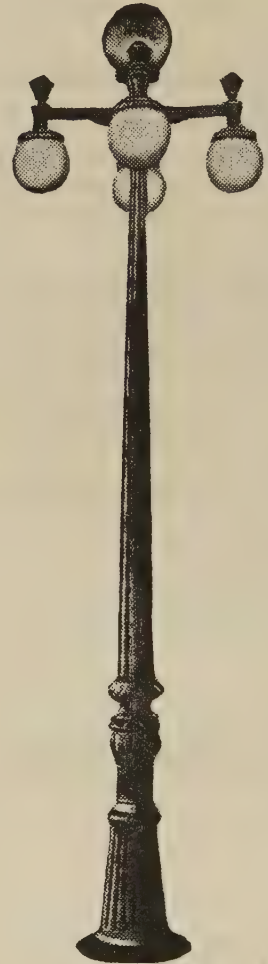
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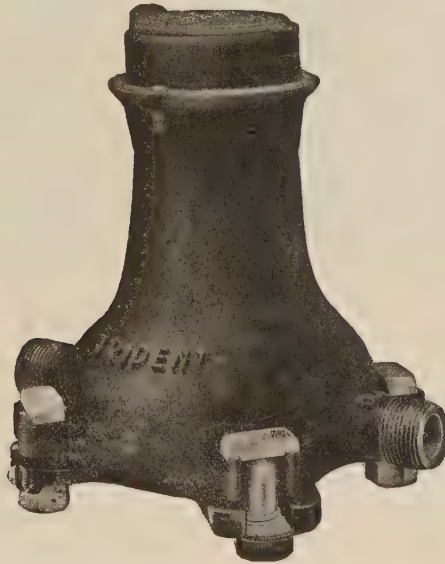
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American Municipalities

February, 1918

Vol. 34, No. 5

Entered as second class matter December 1, 1911 at the Postoffice at
Marshalltown, Iowa, under the Act of March 3, 1879.

Published by

Municipal Publishing Company

Marshalltown, Iowa

Frank G. Pierce, Editor

Subscription Price, . . . \$1.00 per year

Advertising rates made known on application

TO MUNICIPAL OFFICIALS

Municipal officials receiving American Municipalities need have no fear of incurring financial obligations. If you are not a subscriber, either the municipality you represent is a member of one of the Leagues of Municipalities and you are entitled to a copy free, or the copy you receive is a sample copy.

Resolution Adopted by League of Iowa Municipalities

That without evasion or reservation, we do promise that our every word, act and deed shall be in support of our President, our Governor, our Sons and Brothers,—the Sons of the Republic—and their Allies across the sea who are fighting the battle of liberty and freedom, the battle of the weak against the strong, of right against wrong.

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COMMENT

All but a few of the members of the League of Iowa Municipalities have sent in their dues for the current year.

The League is at an extra expense at this time on account of the numerous war activities in which it is interested and should have the active financial support of every city and town in the state.

Every municipal official should investigate the municipal finances and if the expenses are on a scale that will cause an overdraft at the close of the fiscal year, April 1, expenses should at once be cut down in every possible way.

If one or more of your officials report that they are not receiving American Municipalities, you should have your clerk send in a list of your present officials so that the right ones will receive the publication.

The only way in which the mailing list can be kept corrected is by the clerk sending in any changes in the officials.

Most of the gas and electric light companies in the state are asking for increased rates and councils should carefully consider before these increases are granted.

Many of the companies have made good profits in the past years and even though not making a profit now they ought to be satisfied to take a loss for a time on account of the past profits.

The council has the right to have a detailed verified report of the cost of operation before they are asked to increase the rates.

Even with the price of coal and supplies at the present high figures, a company ought to be able to sell electric current at from ten to fifteen cents a kilowatt and make a nice profit.

Make the company show the figures before granting the raise.

FUEL AND ICE

A petition is being circulated in Eau Claire, Wisconsin, asking for a vote on the proposition to establish a municipal coal yard and municipal ice plant. The city of Oshkosh recently voted in favor of establishing both of these municipal industries.

WAR WORK IOWA LEAGUE

Under the leadership of President T. A. Potter, the League of Iowa Municipalities is taking an active part in the war work of the state of Iowa.

Early in the winter, the committee of the League on Defense and Public Welfare, in co-operation with Governor Harding, conducted an investigation of the coal situation and fixed the responsibility of the higher prices of coal in Iowa on the operators and the federal fuel commissioner. Undisputed evidence was presented that the price, fixed by the federal fuel commissioner, for coal at the mine was at least a dollar above the cost of production. The Governor and the committee of the League presented the facts to President Wilson and to the federal fuel commissioner. The responsibility for the present high price of Iowa coal rests on the national administration at Washington and on no one else.

During December, the League sent circulars to all the mayors in the state in relation to enlistments and the army officers expressed their appreciation of this assistance in their work.

During January, the League sent to every mayor in the state a letter in relation to the thrift campaign and the results were all that could be expected. Almost every mayor in the state issued a proclamation asking the support of the people in the thrift movement and in many places they took an active part in organizing the selling campaign.

Early in February the League will send out letters and blanks in relation to the food conservation and it is confidently expected that the response to these letters will be as unanimous as to the past requests.

It makes no difference what a man's ideas are in regard to the necessity of this country getting into the war, or whether or not he approves every action taken by the national government, the fact is that we are in the war and it is every one's duty to support the government and do every thing possible to win the war and to win it in the least possible time.

THRIFT STAMPS

Hon. T. S. Wood, mayor of State Center, reports that on January 26, they completed an organization and made a house to house canvass

in their campaign to sell thrift stamps. This is the kind of a plan that should be carried out in every city and town in the state. Any one who helps the American people learn to save, is doing a work that is of the greatest value to the country and to the people.

FARMERS PATRONIZE MUNICIPAL PLANT

A number of farmers near the town of State Center, Iowa, have made arrangements to construct a transmission line to their farms, and connect with the municipal plant in town. It is a question if the different electric lighting plants can afford to build their transmission lines out past the farms and sell the current to the farmers at a reasonable cost, but when farm lands are worth from two hundred to three hundred dollars an acre, the owners of this land can well afford to build a transmission line, and buy the current at the central station. It was development of this kind that made Iowa the leader in telephones, and as the farmers begin to appreciate the convenience of electricity on their farms, many of them will construct transmission lines in order to get this convenience. One of the big developments in electric service in the next ten years will, without doubt, be the construction of transmission lines by farmers for connection with different electric plants. Municipal lighting plants should co-operate with farms in building such lines, as it will very largely increase their income.

LACK OF LIGHT HELD A DEFECT IN A STREET

What constitutes a defective street is decided by Justice Gage for the Supreme Court of South Carolina in the case of *Sexton v. city of Rock Hill*, 93 Southeastern Reporter, 180, in a tort action to hold the city liable for an accident resulting from the collision of an automobile and bicycle at the intersection of one of defendant's streets. The court, in deciding the case, held that it was negligence on the part of the city, having its own electric light plant, to fail to light the lamp at the intersection of two much traveled roads, and that it would be liable in damages for the injury resulting from the collision of a bicycle and automobile caused by the failure of such lamp. The failure of the city to have the light was considered a defect in the street. The judgment for the plaintiff was affirmed.

THE IMHOFF PATENT

Since the declaration of war by this country against Germany it has been impossible to make any arrangement for the use of the Imhoff Sewage Tank, because Dr. Imhoff is a German. Under the recent laws passed by the United States in regard to dealing with alien enemies, the Pacific Flush Tank Company of Chicago, Illinois, has been appointed by the government the representative of the Imhoff interests in this country, and they are now in a position to actively push the claim for royalty.

While the claims of Dr. Imhoff have not been passed on by the courts, yet the amount of royalty claimed by him is comparatively small that it will probably pay most of the cities and towns to pay the royalty rather than contest the claim. In any event any city or town that is expecting to put in a sewage disposal plant and use the Imhoff Tank as part of the system should correspond with the Pacific Flush Tank Company and get all the facts before they decide to go ahead and put in this system. It is better to make arrangements before the plant is put in than afterward.

PUBLIC AFFAIRS INFORMATION SERVICE

Third annual cumulation, October 1916, October 1917; edited by Lillian Henley, assisted by Katherine J. Middleton. 490p., N. Y., The H. W. Wilson Co., 1917. Price on application.

A comparison of this issue with the previous annuals shows a great increase in the amount of material indexed. Statistics compiled from the order department of the service show that 69 per cent more publications have been listed during the third year of the service than during the second.

The special mission of the service is to list by subject the more elusive material in print. A partial impression only of what the service attempts to index is, perhaps, obtained by a cursory glance at the Key to periodical references, and list of books indexed. Although these are valuable features of the service, the fugitive material, including special reports, investigations, brochures, etc., represent more accurately where the staff expends the greatest effort.

All entries do not represent printed material.

Notes, announcements and digests show the trend of public thought and action, but do not refer directly to printed matter.

FREE RIDES FOR POLICEMEN

New Jersey has a statute requiring street railroad companies to grant free transportation to police officers engaged in their public duties. Patrick Sutton and Frank Mihm, city detectives, believing that under the statute they were entitled to ride without paying fare, got on a street car belonging to the Public Service Railway Company of Jersey City, and were ejected therefrom by an inspector of the company on refusal to pay fare, though each one showed his badge as detective. The inspector was then charged with assault and battery, which he defended on the ground of the unconstitutionality of the statute; but his contention in this regard was overruled, and his conviction followed. This was affirmed by the Court of Errors and Appeals of New Jersey, 83 N. J. L. 46, 84 Atl. 1057, 87 N. J. L. 192, 94 Atl. 788.

On appeal to the United States Supreme Court, Mr. Justice Brandeis, handing down the opinion upholding the state court, says: "Freedom to come and go upon the street cars without the obstacle or discouragement incident to payment of fares may well have been deemed by the legislature essential to efficient and pervasive performance of the police duty. Increased protection may thereby insure to both the company and the general public without imposing upon the former an appreciable burden. If any evidence of the reasonableness of the provision were needed, it could be found in the fact that such officers had been voluntarily carried free by the company and its predecessors for at least 18 years prior to July 4, 1910, when the practice was prohibited by the Public Utilities Act (Pamph. Laws 1910, p. 58). In the following year such free transportation was expressly permitted (Pamph. Laws 1911, p. 29), and it was made mandatory by the act here in question. We cannot say that the requirement that city detectives not in uniform be carried free on street cars, when in their discharge of their duties, is an arbitrary or unreasonable exercise of the police power." *Sutton v. New Jersey*, 37 Supreme Court Reporter, 508.

MUNICIPAL BONDS IN 1917

The outstanding feature of the municipal bond market during 1917, according to THE DAILY BOND BUYER of New York, was the decline in selling values which commenced about February 1st, and continued almost without a break, throughout the balance of the year. The remarkable rise in the values of these tax-exempt securities, beginning in the latter part of 1913 following the enactment of the federal income tax law and culminating in the high prices of January, 1917, has only been outdone by the sharp decline brought about by the entrance of this country into the world war.

The year 1917 opened with the best grade of city bonds selling at prices to yield about $3\frac{3}{4}$ per cent. In the last few days of December, New York City and other well-known municipals could be obtained on an income basis of $4\frac{3}{4}$ to 5 per cent. The year's re-adjustment of values is well illustrated by the experience of the city of Worcester, Massachusetts, which issued $3\frac{1}{2}$ s at a premium in January. In April, it increased the rate on new issues to 4 per cent and sold bonds on a 3.86 per cent basis. In November, $4\frac{1}{2}$ s were floated at par and in the closing month of the year, it was making short term loans at a rate of 4.65 per cent.

The present level of municipal bond values is the lowest in a generation!

The volume of permanent financing arranged by the states, counties, cities, and smaller subdivisions of the country shows the influence of the popular cry of bankers for "conservation of capital" during the period of the war. In spite of the tremendous increase in the activities of both urban and rural communities incident to the speeding up of industry and agriculture, 1917 borrowings by municipalities for public improvements was less than in 1916 or 1915 and but little above the 1914 total. Since the reduction in the output of new bonds was only noticeable in the last few months of the year, it is probable that the tendency to postpone improvements requiring borrowing operations will be very much more marked during the coming year.

The following record of state and municipal financing, compiled by THE DAILY BOND BUYER of New York, shows the yearly volume of new bond issues for the last ten years:

1917	\$475,000,000
1916	497,403,751
1915	492,590,441
1914	446,405,500
1913	408,447,702
1912	339,046,083
1911	452,113,716
1910	324,360,955
1909	363,530,786
1908	355,384,466

SAVE THE PAPER!

Paper is wasted more frequently than almost any other commodity in our national life. In stores, homes, offices, a piece of paper is of small value, to be thrown away as the most convenient way of disposing of it. But paper means money. It means more than money. It means timber.

It is estimated that Canada destroys 500,000 pounds of waste paper weekly. The people of the United States destroy considerably more than ten times that amount weekly. By wasting paper the American people are deforesting their own country and Canada as well. A ton of paper means the cutting down of eight trees of mature growth which cannot be replaced in half a generation.

America is ripe for a waste-paper saving campaign on a national scale. It should be undertaken by public and preferably by governmental agencies. It is work in which every woman, man and child can take part.—NEW YORK MAIL.

ADOPTS GARBAGE REDUCTION SYSTEM

A reduction process of garbage disposal by which the household or dry refuse in organic or kitchen waste will be saved for other use, with incineration of everything of no value remaining, has been adopted by the city of New Orleans.

Decision was reached, according to statements of New Orleans officials, largely through the efforts of and information furnished by the Bureau of Soils of the United States Department of Agriculture.

Grease and fertilizer material will be saved through the new system in New Orleans.

The Law of Municipal Elections in Iowa

Time: Last Monday in March, every other year.

Law: Section 642 Code and 646 Code Supplement, 1913.

Officers Elected: Mayor, Treasurer, Assessor and five Councilmen.

Law for Town Officers: Section 649 Supplement, 1913 Five. Councilmen, Section 645 Supplement, 1913.

Law for Cities of Second Class. Officers, Section 649 Supplement, 1913, Councilmen Section 645 Supplement 1913.

Qualification of Officers: Sections 643 and 644 Code.

Method of holding Election: Section 642 Code.

1—Voting Places fixed by Council.

2—Conducted as General Election.

3—Each qualified elector may vote who is a resident of city or town and had been ten days a resident of precinct in which he offers to vote.

Registration: In cities of over 6000 population voters must be registered for municipal election. See Chapter 2, Title 6 Code, beginning with Section 1076, as amended by Code Supplement and amended by Chapter 41, Laws of 37 G. A. In cities of less than 6000 population and in towns registration is not required. *

Voting Precincts: Law 1090 Code. In cities, Council may fix precincts. In town, entire town is one precinct for municipal elections.

Election Boards: Law, 1093 Code Supplement. Council shall name boards. If at opening of polls there is a vacancy, it is filled by members of board present. Councilmen act as judges of election. Clerk acts as one Clerk.

Polls Open: Law, 1096 Code Supplement. In cities of over 6000 open 7 a. m., close 7 p. m. In cities of less than 6000 and towns, polls open 8 a. m., and close 7 p. m.

Nomination of Candidates:

1—Any party which polls at least two per cent of vote at last general election may nominate by primary, caucus or meeting. See Sections 1098 and 1099 Code.

2—By Petition. Officers may be nominated by petition signed by ten qualified electors. See Section 1100 Code and citations thereunder.

3—Nomination papers must be filed with Clerk not more than 40 or less than 15 days from date of election. See Section 1104 Code Supplement, 1915.

Form of Ballot and Printing: Sections 1106 and 1109, Code Supplement. Clerk shall have ballots printed.

1—See line 18, Section 1106, Supplement, 1913.

2—See line 12, Section 1107, Code.

3—Shall have printed and deliver to judges 75 ballots for each 50 votes or fraction thereof cast at the last preceeding election for state officers. See line 5, Section 1110 Code.

Withdrawals: Any one nominated may withdraw by complying with section 1101 Supplement, 1915.

ONE PLACE FOR ONE OFFICE

Section 1106 Supplement, 1913, line 21.

“But the name of no candidate shall appear on the ballot in more than one place for the same office, whether nominated by convention, primary, caucus or petition, except as hereinafter provided. Where two or more conventions, primaries or caucuses, or any two of them, may nominate the same candidate for any office, the name of such candidate shall be printed under the name of the party first filing nomination papers bearing such name, unless the candidate himself shall, in writing duly verified, request the officer with whom the nomination papers are filed to cause the name to be printed upon some other ticket.”

Notice of Election: Mayor usually publishes proclamation of election at least ten days before election, but there seems to be no provision of law providing for this. This is some times required by ordinance.

In regard to election and canvass of votes, see Chapter 3 and 4, Title 6 Code and Code Supplement.

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Mason City's Sewage Disposal Plant

By F. P. Wilson, City Engineer

On December 1, Mason City took over a Sewage Disposal Plant of the Imhoff type which was designed by Professor Frederic Bass of the University of Minnesota, and constructed by Messrs. Henkel & Brown of this city. This plant was designed and built for taking care of one million gallons of the city's sewage, every twenty-four hours.

The site of this plant covers an area of approximately eight acres. The plant as designed



is located on the site, so that an additional plant of the like number of units may be constructed at some future time when the demands of the city require the same.

A pump house, 25 feet square, was constructed in which is located a deep pump well connecting with the main intercepting sewer in which all the sewage of the city is carried. In this pump well are located three electrical centrifugal pumps which have to lift the sewage twenty-six feet into a building fifty-three feet by seventy-seven feet in which is located our Imhoff tanks. After the sewage passes through the Imhoff tanks, the effluent passes into a dosing chamber forty-one feet by twenty feet, constructed of re-inforced concrete. In the southeast corner of this dosing chamber is located a large thirty inch automatic Miller syphon. When the sewage rises to a specified height in the chamber, the syphon works automatically and the discharge passes into a large percolating filter, which has the area of one acre. This filter is two hundred

and fifty-three feet in length and one hundred and seventy-six feet in width, and the same is filled with crushed rock approximately eight feet in depth. A complete distributing system consisting of cast iron pipes is spaced approximately eleven feet apart in parallel lines across the width of the filter where at different intervals a Taylor nozzle extending approximately six inches above the surface of the rock is located. It takes four minutes for the Taylor nozzle to empty the discharge which comes from the syphon in the dosing chamber.

The spray from the Taylor nozzles distributes itself over the surface of the crushed rock, and the same passes down through the rock to a complete draining system, which carries the effluent to collecting channels on the north and south sides of the filter, passing thence eastward to a main channel on the east end of said filter and from there into a settlings tank or Humus tank. In other words, this is another Imhoff tank.

The effluent after passing into the Humus tank, passes over weirs into a channel on the



east end of the Humus tank, and from this channel to an outlet pipe twenty-four inches in diameter, thence eastward into main intercepting sewer with its outlet in Lime Creek.

The various buildings have been constructed of re-inforced concrete and placed in a most workmanlike and up-to-date manner. All buildings are enclosed with a structural iron roof the

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Fallacies in Investigation of Water Supplies

By H. A. Whittaker, Director, Division of Sanitation, Minnesota State Board of Health

For many years laboratory workers have been developing analytical methods for the detection of pollution in water and these investigations have resulted in the establishment of standard methods for this purpose. It is a well known fact that these methods, when properly applied, form an important part of a routine water supply investigation. It is also recognized that a thorough field survey is absolutely essential before a reliable opinion can be offered regarding the safety of a supply for drinking purposes.

Unfortunately many health departments have been depending largely on an analysis of the water, without obtaining first-hand information regarding the environmental, structural and operative features of the water supply. A common practice is to leave the field work to untrained individuals in the local communities. Data sheets and sampling equipment are often furnished to local authorities and private citizens, who collect the field data and water samples on which the water supply is determined. There are several points in connection with this practice that are dangerous to public safety. By this method, the field survey, which is one of the most essential parts of the investigation, is placed in the hands of an untrained observer who is often incompetent to undertake the work. This same unskilled individual is entrusted with the duty of securing samples of water that must be properly collected if satisfactory analytical results are to be obtained. These samples are then shipped to the laboratory and subjected to most careful examination by skilled technicians when there is no assurance of the accuracy of their collection. This method makes it necessary for the skilled worker to accept facts from an untrained person on the fundamental features of an investigation on which the safety of a water supply is to be judged.

This practice is often the result of a desire on the part of health departments to extend their services to the public, without considering the dangers associated with this method. Fre-

quently, these departments are short of funds to carry on field surveys and this method is provided as a substitute for more thorough work. After the public is educated to such procedure, it becomes very difficult to refuse the examination of samples collected by anyone and from every conceivable source.

In 1903, the Minnesota State Board of Health recognized the fallacy of attempting to investigate water supplies by this method, and since that time has required that the field and laboratory work in connection with these investigations be undertaken by trained representatives of the Board.

In order to show the importance of field surveys and the error which may attend incomplete investigation work, the following table has been prepared from the results of four years' work on water supply investigations in this state.

WATER SUPPLY INVESTIGATIONS, 1912-1916

Investigations	Results				
	Total		Unsatisfactory		
	Satisfac- tory	Unsatis- factory	Field and Ana- lytical	Field	Ana- lytical
Number...569	225	344	180	136	28
Per cent...100	40	60	52	40	8

The 569 investigations represent both surface and underground water supplies from a variety of sources, including wells (dug, bored, drilled, driven), springs, lakes, rivers, creeks, etc. The need for water supply investigations in this state is shown by the fact that 344, or 60 per cent of the supplies examined, were found to be unsatisfactory in their existing condition. An analysis of the results on these unsatisfactory supplies brings out the fact that 180, or 52 per cent, were shown to be unsafe by the field survey and analytical results; 136, or 40 per cent, by the field investigation alone, while the analytical results on the date of the investigation were satisfactory; and 28, or 8 per cent, by the analytical

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American Municipalities in War Time

Paper Read Before the Illinois Municipal League, Urbana, Illinois, December 7, 1917, by Robert E. Cushman, Instructor in Political Science, University of Illinois

(The first part of this paper dealing with "Types of Municipal War Work" appeared in the January number of *American Municipalities*.)

II CO-OPERATION IN MUNICIPAL WAR WORK

The kinds of work which municipalities have found it possible to do to help win the war were discussed at considerable length in the first part of this paper. It remains to consider briefly the methods by which municipal war work may be co-ordinated with that of county, state or nation. What demands are made upon the city in the way of co-operation?

There are two phases to this problem of co-operation. There is, first, the problem of co-operative organization and there is, second, the problem of division of labor.

1. CO-OPERATIVE ORGANIZATION

In the first place, then, how ought municipal war work be organized and how ought that organization be connected with the county, state or national councils of defense?

There is no hard and fast form of organization. The usual plan has been to appoint a council, non-political in character, composed of men who enjoyed the public confidence and who will give their services in an advisory capacity. Certain city officials may be members *ex officio* of that body and frequently the problem of co-ordinating the war activities of private clubs or associations has been solved by making the heads of such organizations members of the municipal council of defense. This central council will serve as a general advisory and directing agency for the purpose of outlining and co-ordinating the work of the committees which it organizes to take charge of the special kinds of work in which it seems desirable to engage. It is assumed that all of the persons appointed to the municipal council of defense or its committees would serve without compensation. The city itself would probably pay the necessary expenses, although in some cases private generosity may make even this unnecessary. This scheme of

organization is susceptible of many modifications and may be made as complex or as simple as local problems render desirable.

Assuming that the city has a satisfactory board council organized which may direct its war activities, the manner in which it can bring itself into working relations with the forces of the state and nation will depend largely upon the way in which the state is organized for war service.

Practically every state in the Union has organized a state council of defense to co-operate with the national council of defense. The relationship between the municipal defense councils and the state councils of defense is in general of two distinct types. First, there are states in which there is direct connection between the state council and that of the city, without the aid of any intermediate agency. Second, there are states in which the local unit for war work is the county, and the municipality is regarded as an administrative subdivision of the county.

(a) Turning first to those states in which the cities co-operate directly with the state councils of defense we find considerable variation as to the scheme of organization. In the first place, there are states in which the state council has been made large enough to include among its members, either active or advisory, the mayors of all the important towns and cities. In these cases, the mayors serving on the state council have naturally been able to direct more wisely the activities in their own cities. In the second place, the direct co-operation of municipalities with the state council has been asked and received even when the county or township was the regular local unit for war work. In Iowa and New York at least direct appeals for assistance have been made to the mayors of cities. In Louisiana and Iowa, the president of the municipal league of the state is a member of the state council of defense and though in neither case does he hold that office *ex officio*, an additional channel of communication is thus opened up

between the state and the municipality. In the third place, there is the quite unique type of organization of war service in New Jersey. In that state all war activities are placed under the control of the adjutant general's office with which is associated a committee of public safety, composed exclusively of the mayors of the state and working through a small executive committee. While many states have councils of defense in which the officers of important cities have places, this seems to be the only instance in which the state council is composed only of city officials, and on which no other subdivisions, interests and organizations are given representation.

(b) Much more numerous, however, than these instances of direct co-operation between city and state are the cases where the county or township is made the unit for local war service. This county form of organization has very generally commended itself to state defense authorities because it covers the entire geographical area of the state and brings both urban and rural districts alike into touch with the central agency.

The relation between the municipality and these county councils of defense differs from state to state. In a few cases, the city organization will supercede that of the county. In New York City, for example, the mayor's committee on national defense controls the war activities of the five counties comprising Greater New York. In other cases where cities are important but do not swallow up the county they are given ample representation on the county councils of defense and may even dominate its policy even though they do not exercise independent power. In many of the primarily rural middle western counties, however, the county council will itself control the war work for that district through the agencies of committees in towns or villages or in some cases by its own direct action. In the state of Texas, the existence of the city is being ignored and a plan is on foot to organize, under the direction of the county councils of defense, subcommittees in every voting precinct in the county.

The foregoing analysis indicates how many possibilities there are in the way of organizing the war work of a state and giving the municipality a place in that general program of patriotic endeavor. Thus far the Illinois State Council of Defense seems not to have adopted any definite

scheme of local organization. Should it decide to do so, the probabilities are that the county would be made the local unit as such a plan would seem to be necessary to reach effectively all the districts in a state so largely rural. But it is hardly conceivable that any plan of organizing the war resources of the state would fail to avail itself of the service of such effective councils of defense as might be operating in the towns and cities of the state. Whether Illinois municipalities are asked to co-ordinate their patriotic efforts with those of a county organization or a state organization is a small matter of importance so long as they work loyally and co-operate intelligently and wholeheartedly.

2. DIVISION OF LABOR

It has already been noted that while co-operation in war work demands careful organization to that end, it also calls for division of labor between the co-operating agencies. Viewed from this standpoint of the effective division of labor the kinds of war service which municipalities may from time to time consider undertaking will fall into three distinct categories. First, there is work which the city alone should undertake or which it can effectively do independently. Second, there are tasks which the city must do in conjunction with the county or state organizations. And third, there are things which the city should not undertake at all but leave to the state or nation.

The war work which the city can most effectively do alone is that, of course, which relates to its own local problems or conditions, the assumption of its own unique responsibilities and obligation. By far the largest part of the service, however, which the municipality can render will fall in the second class of undertakings, in the doing of which it must work in effective co-operation with other agencies doing that task, or part of a task in which it can best serve the great common end. Finally, there are a few sorts of municipal war work, entered upon with the best intentions and the highest motives which are rather generally admitted to be ill-advised. The council of national defense has urgently requested local defense organizations to postpone the adoption of any comprehensive plans for the permanent relief of soldiers or their dependents until the policy of the national gov-

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One-Man Street Cars

Report of Waterloo City Council Investigating Committee on One-Man Street Cars

The undersigned delegated by your body to visit certain cities and make report concerning the operation of one-man street cars beg leave to report that they have visited the cities of Wichita, Kansas; Fort Worth, Austin, San Antonio, Waco and Dallas, Texas; Muskogee and Tulsa, Oklahoma. At these points they learned the following facts which are submitted to your body for your information:

WICHITA, KANSAS

This city has approximately 70,000 people. It covers a considerable area resembling Waterloo in this particular. The great majority of its railroads are elevated so that with the exception of some minor crossings they do not have the railroad problem to contend with. The business streets downtown are very wide. On three lines of their street car system the cars are now being operated by one man. The first one-man car service was started on the line leading to one of their parks and through a fairly well populated residence district. It was installed on September 1st last year and at the time of its installation new cars were placed thereon, and the service was increased about 50 per cent. The cars purchased were steel cars with the seats running sideways and seats 32 people. They are equipped with air brakes and with one large sliding door which is operated with air. The new cars have a motor on one end only, the other end having a vestibule equipped with seats accomodating about eight people, which is used as a smoking compartment. There is a door in this compartment which can be opened in case of emergency by the operator. The cars, owing to the fact that they have but one motor, are operated in one direction only and they require a loop or wye at each end of the line. They cross one railroad track at which the operator gets off his car, walks to the railroad track, observes conditions and returns to his car before crossing. This method of flagging the crossing is used by all cars in Wichita whether operated by one man or two men. Mr. C. R. Lewis, the manager of the street railway company,

is an advocate of this policy. Since these cars were installed, some old cars have been rebuilt for one-man service. These cars are equipped with an exit in the rear which can be opened by a passenger, but when opened the operator is notified by the ringing of a bell. All cars were heated with the Peter Smith hot air heaters. Mr. Lewis stated that the electric heaters cost more and were not as serviceable. In so far as looks are concerned this form of heater is more unsightly than an electric heater, but the cars were warmer. In Wichita, the older men of the company are employed on the one-man cars and received 28 cents per hour, which is two cents more per hour than the highest wages paid to any of the employees of the two-man cars. The wages paid to the two-man operators are 21 cents per hour, depending upon the length of time in the service. We were advised that the company has ordered additional cars and is expecting to install one-man service on one of its heaviest lines in the city, which is known as the "College Hill line". He stated that they had announced this fact and had also explained that the service would be increased and had received no objections to its installation.

The city officials of Wichita advised us that they had received little if any complaint regarding the street car line. Mayor O. H. Bentley and City Engineer Bert Wells both advised us that in their opinion the service was satisfactory. In discussing the matter with some of the street car patrons we found some objection to the one-man service. The two most prominent ones being that old people and children are not being helped off and on the street car as they formerly were, and also that owing to the position of the operator at the front of the car and facing forward he was not in position to see if the people in his car were seated and as a consequence there was danger in the sudden starting and stopping of the car. Complaint was also made by one motorman, who stated that the many duties imposed upon the operator of a one-man car made the respon-

sibility too great for any one man to assume.

All trolley wires at railroad crossings in Wichita are equipped with baskets or netting to prevent the trolley from disconnecting with the trolley wire. Mr. Lewis advised us that in his opinion some such protection was a real necessity.

The street car company in Wichita sell 24 tickets for \$1.00.

The reasons given for installing the one-man street cars in Wichita were that the jitney service and the privately owned automobile had cut into the earnings of the street car company to such an extent that it became necessary to handle more people at the same operating cost. Wichita has a number of jitney lines which operate on the streets of the city. They are charged an annual license of \$75 per year on streets where there is no street car line and \$225 additional or \$300 per year on streets where street cars operate. Strange to say we were advised that practically all had selected the streets on which the street cars operated, in spite of the fact that they are required to pay the additional license fee. No one in Wichita seemed to know how long the jitney service would last, but all conceded that it was seriously interfering with the earnings of the street car company.

FORT WORTH, TEXAS

Fort Worth has a population of about 105,000 and is a rapidly growing city. Prior to November 1, 1916, they had no one-man cars. For some time previous thereto, however, Mr. Clifford, manager of the street car company, and his aides, had been working on a design of a car for the purpose of, as he stated, making a real competitor for the jitney. The committee was much impressed with Mr. Clifford and his ideas of solving the street car problem. In our opinion he was the equal, if not the superior, of any with whom we came in contact, in his position. Mr. Clifford advised us that immediately upon the installation of the jitney in Fort Worth he began to work on what he termed his problem. He stated that the real reason that the people rode on the jitney instead of the street cars was because of the fact that the jitney was on the spot at the particular time that the individual desired to ride it. While he believed that most people would prefer to ride in a street car, other things being equal, they would use the jitney even though they believed it more hazardous and not as comfort-

able, because of the fact that the jitney was there while the street car had to be waited for. From this thought and with the thought that it was the duty of the street car company to devise some way to work out this problem, Mr. Clifford and his aides designed and had built ten cars of a type, which, if Waterloo adopts the one-man car system, will with a few changes more nearly meet the requirements of the people of Waterloo than any of the cars inspected.

The car is of a small type—seating 28 people, but they have carried as many as 50 people in it. It is an all-steel-car and is equipped with air brakes and doors which open by air pressure. In order to operate the car it takes an affirmative act of the motorman and the instant the operator's hand is removed from the controller key the brakes are set and the doors are opened. It has two trolleys and two motors, differing from the Wichita car in this respect. Because of this and the fact that it is not necessary to throw any blocks the operator never leaves the car. The seats are arranged sideways. The door is a single door preventing an entrance and exit simultaneously. It is also equipped with sand boxes. Owing to the size of the car it seemed to have a faculty of getting under headway very quickly and without the jerking sensation noticeable on other cars; an operator on one of the cars stated that it got under headway "faster than a Ford". The operators on these cars are selected from the men without regard to their period of employment. Mr. Clifford stated that their experience had been that some men made good one-man operators while some did not. The wages of men were from 21 cents to 28 cents per hour, depending upon the length of time employed. The one-man car operators were paid 30 cents per hour. One of the operators with whom we talked was much pleased with the car and said that his patrons were enthusiastic over it. He also said the street car company had never done anything which pleased as much. No railroad tracks were crossed by this line, but it crosses the main traveled business street and stops in the heart of the city. The district served by this car line is rather a cosmopolitan section—some of the finest residences in the city are located in this district, as well as some of the middle type. It also passes near a negro section and also a Mexican section,

so that the patronage is not any particular class. At the time the service was installed a record was kept and but 50 per cent of the passengers had their fares ready. At the expiration of 90 days a second record was taken and more than 80 per cent of the patrons had their exact fares ready showing a spirit of co-operation between patrons and company. In this city 22 tickets are sold for \$1. Under a state law of Texas all school children are carried for half fare.

Our committee talked with various people that rode the cars and practically all of them stated that they were satisfied with the service. A few even went so far as to state that they were much pleased with it. But one criticism was received; that being from an old gentleman, who stated that it was more difficult for his wife to ride the car on account of not being assisted on and off, as she formerly had been. Several excellent points in the operation of the car were observed. For instance, the motorman punched his transfers at each end of his route, so that he was able to give transfers to the people as they entered the car with little or no confusion. The result was that the car was unloaded quickly at its destination. Another noticeable feature was the block system which was mentioned previously, and which as stated works automatically. Another was the frequent passing tracks. Another was the closeness of the wheels of the car and the smallness of some of them, which seemed to prevent the jerking sensation noticeable in so many street cars. Another was the lowness of the car, making it very easy to enter or leave. Additional cars were being ordered and Mr. Clifford stated that the one-man service would be extended as soon as the new equipment was secured.

In Fort Worth the railroad crossings are flagged by the conductor, but Mr. Clifford advised us that they were considering having the motorman flag them as was being done in Wichita. All trolleys at railroad crossings are guarded by baskets or netting the same as at Wichita. The jitney was removed from the streets of Fort Worth by ordinance on January 1, 1917.

AUSTIN, TEXAS

At Austin, Texas, a city of about 54,000 people, they are using one-man street cars in some of the out-lying districts. These cars are

operated by having two men out to certain streets and one man making the balance of the journey alone, while the other man accompanies another car to the city. There are, therefore, two men in charge in the busy portion of the city. The service was fairly satisfactory and the mayor advised us that he had received no complaint about it.

There was nothing new or different in this service, which in our opinion would be of value to the Waterloo situation.

SAN ANTONIO, TEXAS

San Antonio, Texas, has approximately 135,000 people and has eight lines which are operated by one-man. One of these lines extends from one side of the city to the other and in its course of progress it passes over street railway tracks in the heart of the city. It also crosses a railway track, which more nearly resembles the tracks of Waterloo than any other line which we visited. The cars are rebuilt cars. They are equipped, however, with two contrivances which in our opinion are worthy of consideration: One of these is a mirror above and in front of the operator, which is adjustable and which permits the operator to get a complete view of the interior of the car, and which answers one of the objections made in Wichita. The other was a shield similar to a wind or rain shield on an automobile. It is adjustable and when it is raining it prevents the obscuring of the front glass and gives the operator a clear view. On the one-man car the operator flags the crossing by leaving the car and proceeding to the track and then returning in the same manner as is done in Wichita. The trolleys at the crossings are protected by baskets or netting.

At San Antonio the jitney situation is very bad. There are a great number on the streets. The city officials had just ordered them discontinued by an ordinance. However, the jitney operators had enjoined the ordinance in some manner and were still operating, although the city officials were of the opinion that they would not last long. At San Antonio we were fortunate enough to meet Mr. Locher, the manager and vice president of the street car company at Corpus Christi, Texas. Mr. Locher advised us that Corpus Christi has about 24,000 people, and that all the lines had been changed from two to one-man operation and that they were meeting

with no opposition. Upon the installation of the one-man car the service was increased and the people were generally pleased. Forty-five tickets are sold for \$2 and universal transfers are given. Since our return to Waterloo, Mr. Locher has forwarded a paper on this subject, which is attached and made a part of this report.

WACO, TEXAS

At Waco, Texas, all cars are operated by two-men with the exception that on two lines the cars are operated by one man on the outskirts of the city. This is done when the motorman leaves the car in the custody of the conductor and meets a car which in turn is operated by a different conductor. The conductor on the first car then takes it to the outskirts of the city and returns where a motorman accompanies him and takes the car through the city district. We were informed that all the cars were formerly one-man cars and had gone to two-man cars about two years ago, but they were expecting to return to the one-man car again on some of the lines. The city has about 45,000 people and experienced a considerable growth a few years ago and in consequence the two-man cars were placed in service. Mr. Ross, manager of the company, stated that he would never operate a one-man car without air brakes and that in his opinion sand boxes were a necessity. The railroad crossings all had baskets or netting similar to those in other cities.

DALLAS, TEXAS

In this city the one-man car is in use on one line in the out-lying districts. Upon arrival at Dallas we found the city street car company engaged in a franchise fight. One franchise had already been submitted and had been defeated and another was ready for submission. Consequently we did not find anything of value to us.

MUSKOGEE, OKLAHOMA

At Muskogee, Oklahoma, which is a city of about 45,000 people, about 60 to 75 per cent of the cars are operated by one man, but the service is very unsatisfactory. The criticism applies, however, to the two-man cars as well as to the one-man cars. The cars operated by one man are rebuilt and in some instances are cars about the size of some of our interurbans. They are high from the ground and the steps are single, and owing to the length of the car it takes a considerable time to load and unload the passen-

gers. They have no jitneys in Muskogee, having been removed by an ordinance some time ago.

TULSA, OKLAHOMA

Tulsa, Oklahoma, is the most unusual city which we visited. It is the center of the oil region and has increased from approximately 18,000 people to a claimed population of 62,000. Many buildings are being erected. Many additions are being platted. Many improvements are being made. The street car line has not kept pace with the growth of the city and as a result is being seriously criticised by everyone, while the present council is seriously considering the problem. At present the one-man cars are in operation on some lines. They are rebuilt cars and are criticised by all. However, the same criticism exists of both the one-man and the two-man cars. We did not hear a good word for the service, but on the contrary heard much criticism.

Summing up our investigations we would state, that while the one-man service at Fort Worth is comparatively new and while each local situation has its own peculiar differences requiring different treatment in part, this committee is of the opinion that if certain slight changes are made in this Fort Worth car and if certain operating methods are used in the service which are of local significance that a service can be arranged in Waterloo with such a car as will be satisfactory to the people.

PATTERN OF CAR

As to the character of the car we would recommend as follows:

First: The car should be about one foot wider than the Fort Worth Car. In our opinion the seats were slightly narrow, which could be overcome by a wider car.

Second: The seats of the car should be arranged sideways instead of lengthwise. Our investigations have convinced us that seats so arranged are more serviceable and patrons are not so apt to fall in case of a sudden start or stop.

Third: The doors of the car should be wider so as to permit entrance and exit at the same time. Owing to the different climatic conditions this is a very important requirement of a serviceable car for Waterloo.

Fourth: We would also recommend that the mirror and rain shield of the San Antonio car be embraced.

Fifth: We would also recommend that serious attention be given to the heating of the cars. Owing to the fact that no heat is required in the Fort Worth car on account of different climatic conditions, and to the fact that the only cars heated were the Wichita cars, we did not receive sufficient information as to justify us in making a definite recommendation.

Sixth: We would also recommend that a double sash be required in all vestibule windows in order to prevent the frosting of the glass and the obstruction of the view thereby.

Seventh: We would also recommend that each car be equipped with sand boxes for emergency use.

OPERATING EQUIPMENT

As to the operating equipment we would advise as follows:

First: Frequent sidings should be required on all lines where double track is not maintained in order to avoid delays.

Second: All block signals should be operated automatically on lines operated by one man in order to prevent the delays necessary by requiring the operator to leave his car and walk the necessary distance to turn the block.

Third: In our opinion every railroad crossing should have a basket or other safeguard over the trolley. We were advised by Mr. Clifford of Fort Worth, that a new form of protection is now being developed, which, in his opinion, might be better than the basket. Until such improvement is developed, however, we would recommend that the basket be required. This recommendation is based upon the statement of every street car manager with whom we conversed on our visit.

CHANGES IN SERVICE

As to changes in the service we are of the following opinion:

First: In our opinion satisfactory service can never be given on the streets of Waterloo until some efficient and fixed method of handling the transfer problem is devised. We recognize that this is a great problem, but from methods used at various cities visited we would recommend the following method until a better one is submitted:

All transfers should be valid on any line in the city except on the same line or cars operating on the same track. By printing the transfers in

different colors it would permit each operator to recognize instantly the line from which the transfer came. As an example the Byrnes park and the Sullivan lines would both use a yellow transfer while the Litchfield line would use a white. This would prevent a person from transferring from a Byrnes park to a Sullivan, but not to any other line in the city.

Again the date should be stamped or printed on each transfer.

If some such plan were in operation it would effect a great saving in time, inasmuch as the only punch necessary would be the time of issuing, which could be done at the end of each run. By so doing, the transfer would be ready for distribution to the patron upon his entering the car and would greatly increase the efficiency of the service in the opinion of this committee.

Second: We are also of the opinion that in exchange for the privilege of operating one-man cars that the service on all lines where such service is permitted should be increased. This has been done in every instance where we have visited and we recommend it as being of value both to the patrons, who receive the increased service, and to the street car company, who will profit by the increased patronage.

Third: We would recommend that operators of one-man cars receive extra compensation for their services over that paid to two-man car operators. Our investigations have convinced us that better service has resulted where this has been done.

Fourth: We would recommend that in our opinion the best service for Waterloo can be had by providing large two-man cars for transporting patrons employed in the factories during the hours when the men are going to and coming from work. If some provision could be made whereby these large cars could be parked near the points where the greatest number of men are employed and routed direct to all lines on which a sufficient number of patrons resided it would obviate transferring and would provide a more adequate service, not only to these people, but to the general patronage whose cars would be relieved of the increased traffic during these hours.

Fifth: We would also recommend that careful consideration be given to the matter of the railroad crossings. Owing to the fact that our observations were limited in scope, we are

not ready to make a fixed recommendation in this regard. Whether the operator should flag the crossings by leaving the car in the manner as is done in Wichita, whether uniformed men should be placed at the crossings, whether bells or signals should be placed thereon, or whether the present method is the best method we believe should be left for future deliberation and adjustment.

In submitting all of the above, many matters have been included that perhaps do not pertain strictly to the mission on which we were sent. However, we have endeavored to learn in each city where we visited as much of street car operation as was possible, and have tried in this report to put you in possession of such facts and conclusions as we believe would be of information to you and the people of Waterloo in the solving of our problem.

Of course, in the securing of a proper street car franchise and the maintaining of a proper efficient street car service, many details will have to be worked out and we lay no claim to having suggested all that should be done to secure that service.

However, it is our opinion that if our city could secure service as it is being given in Fort Worth, Texas, on the line now operated by one man with such changes and additions as are herein suggested and such proper requirements and safeguards as may be suggested by others, that it will have solved the street car problem in Waterloo for many years to come.

The securing of good street car service to a city is a real problem.

One fact was demonstrated to us on this trip more than any other and that was that we are not the only city which has this problem to solve. The jitney and the privately owned automobile together with the increased cost of materials has made efficient service, a real problem in many cities.

What the people of a city desire is safe, efficient and ample street car service and this lengthy report is submitted with the hope that the results of our investigation will be of some assistance in settling the problem and securing such service for Waterloo.

Respectfully submitted,

W. R. LAW
J. W. RICKERT
M. J. MORGAN

Fallacies in Investigation of Water Supplies

(Continued from page 139)

results alone, where the field investigation did not show the possibilities of pollution at that time, and further investigation was required. These results show that the field survey was corroborated by the analytical results in 52 per cent of the cases; that the field survey was the only index of danger in 40 per cent; and the analytical results the only index in 8 per cent.

These results bring out very forcibly the importance of thorough field work, for had the analytical results been accepted as the only index, 40 per cent of the unsatisfactory supplies would have been approved. It is also true that had the analytical work been omitted, 8 per cent of the unsatisfactory supplies would have been overlooked. It is evident from these results that both a field and analytical investigation should be made before an opinion is given as to the safety of a water supply from a sanitary point of view. The field survey should give an accurate idea of the possibilities of present and future pollution, while the analytical results should provide information on the sanitary condition of the water at the particular time the investigation is made, and may furnish some information on the past history of the water. The field survey and analytical results together should afford information on which recommendations can be made for the protection or abandonment of the supply.

It should be thoroughly appreciated that the use of any method in the investigation of water supplies which provides for the collection of haphazard information by untrained individuals is a dangerous practice. Judging from the published material of various health departments, there appears to be little uniformity as to the collection of data on which opinions are offered regarding the safety of water supplies. It would seem that a comprehensive survey of the methods of all state departments, at least, would be desirable at this time. These data would provide information on which recommendations could be made with the view of unifying the irregular procedures now in use. It is appreciated that a variety of conditions attend the work of public health departments in different sections of the country, but a standard procedure could be outlined toward which all could work.

Municipal Engineering Notes

By D. C. Faber, Industrial Engineer

SUPPLY OF EXPLOSIVES CAN BE INCREASED BY CHANGING GAS STANDARDS FROM CANDLE POWER TO HEAT UNIT BASIS

By Dr. C. A. Mann, Department of Chemical Engineering, Iowa State College

The British Tommy uses the term T. N. T. for a very powerful explosive known chemically as tri-nitro-toluol.

This chemical compound has been known since 1863, but its explosive properties were not discovered until 1880, and it was not used as an explosive until 1891.

Spain and France introduced this material into their military service some time prior to 1909, and the German manufacturers placed this explosive on the market to be purchased by other countries for military purposes. With the fall of Liege in 1914, however, the world became acquainted with this powerful military explosive which is so much sought after by the belligerent countries.

T. N. T., though a powerful explosive, is neither difficult to make nor is it dangerous to handle or transport.

DYE PRODUCT

When toluol, a water white liquid similar to benzol and related to it chemically, is treated with a mixture of strong nitric and sulphuric acids under proper temperature conditions three products result, namely: mono-nitro-toluol, di-nitro-toluol and tri-nitro-toluol.

The first two materials are very important substances used for making dyes, but by treating these further with nitric acid they are largely converted to the tri-nitro-toluol. The reaction mass when cooled forms a solid cake of tri-nitro-toluol which remains on the surface of the dilute mixed acid fine crystals separate from this liquid. These two products are united and carefully dried at about 60 degrees centigrade or if further purification is desired one part of the T. N. T. is dissolved in nine parts of 95 per cent alcohol and

one part of benzene and allowed to crystallize when beautiful crystals form.

For the manufacture of this explosive it is then necessary to have a supply of toluol as well as nitric and sulphuric acids. The latter materials are still available in large quantities, but the supply and production of suitable toluol is still limited.

COAL GAS CONSTITUENT

Toluol is one of the constituents of all coal gas as well as carburetted water gas. It is also one of the constituents of coal tar and can be obtained from the tar by distillation.

At the present time this country is producing annually approximately 11,000,000 gallons of toluol which comes mostly as a by-product from the gas resulting in the manufacture of coke. This gas is essentially the same as city coal gas used for illuminating and heating purposes.

The number of coke ovens with recovery plants is increasing as rapidly as the present conditions will permit, and will add to the supply of toluol but, according to General Crozier, the mobile artillery alone would require by September, 1918, at least 22,000,000 gallons of the toluol for the preparation of the T. N. T.

The toluol must be and there are fortunately means of increasing the production of it.

During 1916, this country produced about 330,000,000 cubic feet of gas which contained on an average of .05 gallon of toluol per thousand cubic feet of gas. If we could get this toluol it would mean a supply of toluol from gas plants amounting to 11,000,000 gallons for the next four months.

HOW CITIES CAN HELP

City and state regulation in many cases require an illuminating gas to have a high candle power standard. Toluol contributes to the illuminating value of a gas and therefore must remain in the gas if the high standards are insisted on.

With the mantle type of gas burner it is more important to have heating value than candle

power to bring the mantle to incandescence and since very few other types of gas burners are used today it would be patriotic to dispense with the illuminating value standard to allow the gas companies to strip the gas for the needed toluol. It is more important today to "shoot toluol" than to burn it.

How is the toluol obtained from the gas? Toluol with benzol and xylol which occur with it in gas are quite soluble in anthracene or "green oil" which is obtained from the distillation of coal tar and which does not boil under 270 degrees centigrade. The gas is made to pass through a tall tower filled with pieces of quartz down which the "green oil" trickles. The oil coming in contact with gas dissolves out the toluol with the benzol and xylol. This mixture is then distilled and as the toluol boils at about 120 degrees centigrade it can be distilled from the "green oil", condensed and collected. After further purification it is ready to be converted into T. N. T. It has been found recently that carburetted water gas yields a considerable amount of toluol.

It is the patriotic duty of every gas company to assist in producing as much toluol as possible. It is the chemist, and especially the engineer, who can assist in inducing the gas companies to take up the proposition of stripping the gas of this valuable toluol for making T. N. T. as a patriotic duty, and because it is an excellent source of revenue, not only for the period of the war, but after the war when these materials will be used for the manufacture of dyes and other fine chemicals.

No matter how small the gas plant, whether it produces coal gas or carburetted water gas, it can help by increasing the production of toluol for the manufacture of T. N. T., which will help to keep down the casualty list of American soldiers fighting for this country.

* * *

NO UNNECESSARY LIGHTING ON THURSDAY OR SUNDAY NIGHTS

The United States Fuel Administration has put into effect "lightless nights" on two nights of each week. These nights are Sunday and Thursday. Under the new order "white ways" of all cities are expected to disappear absolutely on the nights designated. The burning of lights contrary to the wording and spirit of the order

will constitute a violation of law, and steps will be taken by the Fuel Administration to punish offenders. The order says: "No corporation, association, partnership or person, engaged wholly or in part in the business of furnishing electricity for illumination or power purposes, and no corporation, association, partnership, or person, maintaining a plant for the purpose of supplying for their own use electricity for illumination or power, shall use any coal, oil, gas or other fuel for the purpose of illuminating or displaying advertisements, notices, announcements, or signs designating the location of an office or place of business, or the nature of any business, for electric searchlights, or for external illumination for ornamentation of any building, or lights in the interior of stores, offices, or other places of business, when such stores are not open for business, excepting such lights as are necessary for public safety, or as are required by law, nor for excessive street lighting intended for display or advertising purposes, whether such lights are maintained by the municipality or by others. These prohibitions, and all of them, are effective on Thursday and Sunday nights only, of each and every week." The only exceptions apply to lights used for governmental purposes only by the United States government or the government of any commonwealth or state, street lights used by any city or town or within any city or town under a contract with the officials thereof for such maintenance. But, it is expressly stated, no "white way" or cluster lights may be used under any circumstances. Letters received by the Fuel administration from companies and individuals engaged in the business of supplying illuminated signs and from manufacturers, merchants, motion picture and other entertainment concerns which make large use of such signs, give assurance that the new order will become fully effective without resort to prosecution. The Fuel Administration also asks that, in compliance with the patriotic spirit of the order, householders shall observe the "lightless nights" by burning as few lights in homes as it is possible to get along with conveniently. It is said that the original Fuel Administration order on the dimming of electric signs had failed of the coal-saving result expected. That order was intended to restrict the use of fuel-consuming signs to the period between 7:45 p. m. and 11 p. m.

FAILURE OF BEAVER AVENUE ROAD UNDER CAMP DODGE TRAFFIC SHOWS LIMITATION OF GRAVEL SURFACE

The limitations of gravel as a road surfacing have been forcibly impressed upon the road officials and the people of Polk county by the utter failure of the gravel surfaced roads leading from Des Moines to Camp Dodge. The Panora Speedway and the Beaver avenue gravel roads were supposed to be models of the roads of the cheaper kind of construction, and were standing the traffic to which they were subjected, in fine shape with but comparatively little maintenance expense. With the coming of the army motor trucks with their heavy loads and high speed, with the pleasure car traffic and the horse traffic multiplied many times, these gravel surfaces went to pieces almost over night. No possible amount of maintenance effort or expense could have kept them in satisfactory condition. The gravel was not of the trenched and rolled type of construction but there is little reason to believe that under the traffic conditions, the ultimate result would have been any different with the more expensive type. The traffic on these roads is so heavy that even the staunchest adherents of the gravel roads, as capable of sustaining any present or future traffic conditions in Iowa, must admit the utter impossibility of gravel satisfactorily meeting the conditions. With traffic census figures showing already a very large per cent of ordinary farm traffic, carried by motor trucks, it is not hard to see that Iowa farm traffic conditions are rapidly following conditions in older states where the bulk of such traffic is by means of motor trucks. It will be argued that there will be no roads in Iowa where there can be such congestion of traffic as on the army post roads. However, just as the motor races where speeds of 100 miles per hour are sustained, bring out the limitations and structural weaknesses of motors and chasses, concentrated traffic of this kind in a few days, give a road surface as much wear as ordinary conditions give in many months' time and expose the ultimate limitations and weaknesses of the surfacing material.

Well built gravel roads will answer the need on thousands of miles of Iowa highways for many years to come. It is foolish however, to contend

that the gravel road will be sufficient to meet future traffic conditions on the more important and heavily used country roads. Putting gravel on such roads in many cases is as foolish a waste of money as for a farmer to buy a light riding horse and expect him to take his place before the plow with a team of heavy draft animals. He may stand the work for a time but he will go to pieces in the end and have to be replaced. The gravel road will be the same where traffic is too heavy for it to withstand. If Iowans will learn the lesson which is to be gathered from the Camp Dodge gravel roads, the state will be saved countless thousands of dollars by looking forward to the moving of farm crops by motor vehicles within a very short time and build road surfaces of materials, and kinds which can reasonably be expected to stand the gruelling traffic to which Iowa roads are certain to be subjected, long before a good road surface should outlive its usefulness.—IOWA STATE HIGHWAY COMMISSION BULLETIN.

Mason City's Sewage Disposal Plant

(Continued from page 138)

same being covered with the best grade of red asbestos shingles. The outside surface of all walls is finished in pebbled dash. The roofs are constructed of a mission style. The grounds are terraced and sodded, and Barberry hedges have been set out so as to give a very pleasing appearance to the grounds around the buildings. The sewage disposal plant complete cost the city of Mason City approximately one hundred and fifty thousand dollars. A caretaker's cottage costing approximately three thousand dollars was constructed of the same design of architecture with asbestos shingle roof, etc., so as to harmonize with the other buildings. Special credit should be given Messrs. Henkel & Brown for their painstaking and honest endeavors to construct the plant in the most workmanlike and honest manner.

The municipal electric light plant of Hewarden, Iowa, was badly wrecked January 2, by the breaking of the fly wheel in the power house. The governor failed to work and the engine run away. Damage is estimated at about \$4,000.



We Must "Follow-Up"

The story of the Gallipoli withdrawal is a tale of inadequate support. Like Salamanders clinging to the red-hot bars of a fiery furnace, the boys of Australia and New Zealand clung to the slopes of Anzac. Desperately, heroically they clung. No troops under any circumstances ever displayed greater soldierly qualities or upheld more sacredly the best traditions of England's Army. But they had to withdraw because the "follow-up" was not there.

To some of us it has been given to march with the columns of troops that go to France. And to others it is given to wave Godspeed. But he who marches and he who stays is equally a citizen of the world's

mightiest republic and equally responsible for its success in this greatest of undertakings.

Then let us at home turn from our flag waving and consider how necessary we are, how useful we must be. Those who go to fight cannot hope to win by naked bravery and we cannot hope to win unless every individual at home does *all* he can. We must have no Gallipoli.

The Bell System is only one of the myriad great and small industries which are co-operating that nothing be left undone to keep a constant, efficient stream of men, guns, ammunition, food, clothing and comforts flowing to the front



AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy

One System

Universal Service

The Law of Municipal Elections in Iowa

(Continued from page 137)

FORM OF PETITIONS

Petition for full ticket

NOMINATION PETITION

We, the undersigned qualified voters and residents of the Town of Smithville, Iowa, hereby nominate the following candidates, namely:

Paul Smith, as a candidate for Mayor.

Phillip Smith, as a candidate for Treasurer.

Peter Smith, as a candidate for Assessor.

James Smith, as a candidate for Councilman.

Matthew Smith, as a candidate for Councilman.

Luke Smith, as a candidate for Councilman.

John Smith, as a candidate for Councilman.

Ed. Smith, as a candidate for Councilman, to be voted for at the election to be held March(Last Monday) 191.... The above ticket to be the "Independent Ticket" (or any name you choose).

Name	Place of Business	P. O. Address
<i>Petition for single office</i>		

NOMINATION PETITION

We, the undersigned qualified voters and residents of the town of Smithville, Iowa, hereby nominate John Smith, as a candidate for the office of Mayor, to be voted for at the election to be held March.....(Last Monday), 191....

Name	Place of Business	P. O. Address
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ATTENTION LOCAL BOARDS OF HEALTH

The State Board of Health wishes every case of typhoid fever occurring in Iowa reported promptly to Dr. Henry Albert, Director, for State Board of Health Laboratories, Iowa City, Iowa.

All wells in close proximity to privy vaults should be condemned at once as dangerous to public health, and all cities having public water supplies should at once confer with Dr. Henry Albert, Laboratories for State Board of Health, relative to an examination of their public waterworks, in order that it may be known whether the water being furnished is safe or not for drinking and culinary purposes.

The milk supply should be investigated, because milk can convey typhoid fever if the same comes from infected premises.

Privy vaults should be abandoned for water tight vaults with double compartments, so that each compartment may be alternated in using, and all outside privies should be made flyproof, and made free from contaminating the wells and water supplies of all communities.

A survey of all towns, villages and cities should at once be begun in order to prevent epidemics of typhoid fever and other communicable diseases.

Farmers and others living in the country should see to it that their farms are put in a sanitary condition in order to prevent sickness. The privy vault on the farm may become a serious menace and produce typhoid fever and thereby infect the milk supply and carry typhoid fever and even diphtheria and scarlet fever to other parts of the country and other parts of the state.

Soldiers may bring these diseases into our cantonments from distant parts, hence the whole state should begin at once a general cleaning-up campaign for the purpose of preventing all communicable diseases.

The State Board of Health advises all persons to be vaccinated against typhoid fever and smallpox, for in so doing these diseases are prevented.

Remember that typhoid vaccine, smallpox vaccine, diphtheria antitoxin and other biologic products can be obtained from Iowa State Board of Health stations at reduced prices. Call for Iowa State Board of Health goods (Squibb's) at any Iowa State Board of Health station.

This circular should be carefully read and heeded by everyone in this state.

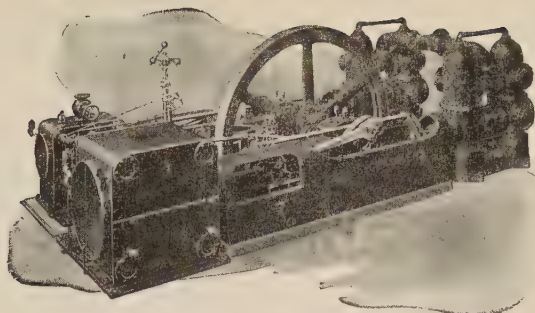
IOWA STATE BOARD OF HEALTH,

By Guilford H. Sumner, M. D.,

Secretary-Executive Officer.

MUNICIPAL HEAT PLANT

Twenty business men of Blue Earth, Minnesota, have agreed to install a heating plant to heat the business district of the city, and then to turn the plant over to the city, as soon as they have received heating service equal to the amount of their investment. This is one way to secure municipal ownership, and is also a good thing for the merchants, who co-operate to maintain a general heating plant. It is cheaper and better for all concerned.



MARSHALLTOWN, IOWA

Hans Madsen, Superintendent, referring to a 4,000,000 gallon pump installed by this Company, says:

"We are highly pleased indeed. The pump performs far beyond our expectations and the guarantee, and the engine works perfectly."

Write for Bulletin 1637

Allis-Chalmers Manufacturing Co.

Milwaukee, Wisconsin

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AND
APPLIED**

ROAD OILS

Rex No. 2, the "Rubberoad" Surface

For Dirt Streets and Roads—One-Fortieth the Cost of Paving

What everyone has been wanting for dirt streets and roads. An Oil that makes a Rubber Surface, does not grow dusty, and wears like iron. Officials who have used practically every other oil are putting "Rubberoad" Surface on their streets and roads.

This material will not penetrate the roadbed like other oils, but lies on the surface until the liquid element evaporates, thus leaving a soft, pliable asphaltic surface. Costs but little more than other Road Oils.

We will contract to sell and apply material, furnishing our modern equipment, making it unnecessary for you to purchase costly equipment for the few days you would possibly use it. If you have modern equipment, let us quote you on your material.

Eliminate Mud and Dust. 37 different contracts with 20 Iowa Municipalities and Counties last year show the large percentage who order additional work within a few months. We will be glad to refer you to this work. Try a few of your streets or roads and you will demand it on all of them.

Have us protect you now on your requirements for the coming season.

Iowa Road Building Company
Manhattan Building, Des Moines, Iowa

When writing advertisers please mention American Municipalities

Party Lines in Municipal Election

Majority of Iowa Cities Hold Non-partisan Election

The great majority of the cities in Iowa do not draw party lines in their municipal election. The commission plan and manager plan laws provide for non-partisan elections, and in those cities where this is not obligatory, arrangements have usually been made, by mutual consent, and elections are held under some kind of non-partisan plan.

Webster City is the only city in the state operating under the manager plan law. This city reports that even before the adoption of the manager plan, it had not held partisan elections for the last forty years.

Burlington, Cedar Rapids, Des Moines, Fort Dodge, Keokuk, Marshalltown, Mason City, Ottumwa and Sioux City are organized under the commission plan of government and hold their elections under the non-partisan features of that law.

Council Bluffs, Davenport, Eldon, Fort Madison, Iowa City, Missouri Valley and Newton report that they draw party lines in the municipal election.

In these cities, however, the party lines are very loosely drawn and usually republicans and democrats are both elected, it being the custom to vote very largely for the man rather than the ticket. Fort Madison reports "in nominations we draw party lines, but election for the man". Iowa City reports "when it comes to voting, lines are not very clearly drawn as to the party". Missouri Valley reports that "believe that there is bound to be factional lines, and that it is better to have them along party lines than any other".

Estherville reports that there is usually a republican ticket and the field against them, and that the field usually wins. The present mayor is serving his fourth term as mayor, is a democrat who has been elected on the citizen ticket against republican ticket. Estherville is a strong republican city and party elections.

Clarion reports that they sometimes draw party lines but they usually look to securing the consent of persons to accept the positions

who are capable, who will attend to the public affairs and interests of the city.

The following cities report that party lines are not drawn in the municipal elections: Algona, Ames, Bloomfield, Cedar Falls, Chariton, Charles City, Cherokee, Clarinda, Colfax, Corning, Denison, Eagle Grove, Eldora, Grinnell, Hampton, Harlan, Hawarden, Independence, Indianola, Iowa Falls, Leon, Mt. Pleasant, Maquoketa, Marion, New Hampton, Oelwein, Osage, Oskaloosa, Perry, Shenandoah, Spencer, Tipton, Villisca, Valley Junction, Vinton, Waterloo

Charles City reports that they nominate entirely by the circulation of nomination papers, and that at the last election there were three tickets in the field.

Cherokee reports that they hold a non-partisan caucus, and nominate officers and that this usually settles the question as that is the only ticket in the field.

Grinnell reports that the vote hinges on the fitness of the man. The business of the city has no national issue. It would be a mistake to claim a party victory.

Harlan reports that they usually have two candidates for each office under the name of people's and citizens' tickets.

Hawarden reports that they usually have three tickets called the citizen's ticket, people's ticket and independent ticket.

Leon reports that they have a caucus nominate a ticket and usually there is no opposition to this ticket, but that sometimes a few others nominate a ticket by petition.

Maquoketa reports that they usually have two caucuses, but at the last election they only had one and there was only one ticket in the field.

Osage reports that they nominate a caucus ticket as a citizen ticket, and the opposition to this ticket files their nominees by petition.

Tipton reports that some try to draw party lines, but most people do not, they are more for the man than the party.

Classified Advertisements

Officers of members of the League of Iowa Municipalities may run one advertisement each month free of cost.

BIDS WANTED—The city of Perry, Iowa, will receive bids until 8 o'clock p. m. February 15, 1918, for 1 60 K V A, 2 phase 60 cycle 220 volt A. C. generator, directly connected to engine. To be installed at the Perry Water Works. Specifications and profile of plant may be obtained at the office of the City Clerk, Perry, Iowa. Adrian Cross, City Clerk. 118

FOR SALE—One Ingersoll Rand duplex air compressor, in first class shape. Address Adrian Cross, City Clerk, Perry, Iowa. 118

FOR SALE—One Seagraves horse drawn hose wagon and fire harness, same as new, for sale at less than half price. Address, J. O. Gregg, city manager, Iowa Falls, Iowa.

FOR SALE—All brass Artesian well cylinder 5 3/4 x 36 inches with bronze ball valves and 300 feet of 3 1/2 inch Octegan selected ash wood rods fitted with dropped forge sucker rod couplings, suitable for pumping from deep well, using steam head or lever stroke. For particulars, address G. F. Taylor, city clerk, Stuart, Iowa.

FOR SALE—All brass Artesian well cylinder 3 1/4 in. x 48 in. with bronze ball valves and 350 ft. of 3 1/2 in. number 1 wood rods and couplings, suitable for pumping from a deep well using steam head or lever stroke. For particulars, address, G. F. Taylor, City Clerk, Stuart, Iowa. 107

FOR SALE—Having recently made arrangements with a power company to furnish electricity the town of Coggon has the following for sale. 1-28HP Bates & Edmonds double cylinder gasoline engine. 1-125 Volt 120 amp. continuous load D. C. generator, 1200 R M P. 1-55 volt 25 amp. continuous load D C generator, 1400 R M P. 1 fully equipped switch board. Everything in good condition. For information write F. W. Lindahl Town Clerk. 106

FOR SALE—The city of Shenandoah, Ia., has for sale. 1 Seagraves Hose Wagon in extra good condition fully equipped. 1 Hale Hose Wagon (new) built especially for Tournament purposes 2 Sets of Hale harness and hangers nearly new. 1 Hand drawn ladder truck with ladders. 2 Hand drawn hose carts in excellent condition. Also will sell one span of fire horses, (thoroughbreds) young and well broken for fire service. Address inquiries to C. M. Conway, city clerk. 106

FOR SALE—Having recently made arrangements with a neighboring town to furnish electric current for lighting and power. The town of Shelby offers for sale a Gas Lighting Plant, complete in good running order will sell at a bargain, as the town has no use for it, address all communications to town clerk of Shelby, Iowa.

FOR SALE—The incorporated town of Milford has for sale 1 Davis carbide feed acetylene gas plant in perfect condition. Model B generator 75 pound capacity. 23 burners with fixturers. 150 feet 1/2 inch pipe. Will sell at a sacrifice. For information write J. E. Shelledy Clerk, Milford, Iowa.

FOR SALE—Having recently installed a water works system the town of Lowden offers for sale a chemical engine in good condition. For particulars write Richard Parr, Town Clerk, Lowden, Iowa. 116

FOR SALE—85 pieces, 12 feet lengths, 16 inch cast iron pipe; 22 pieces about 21 feet length, 4 inch, extra heavy galvanized with couplings; 8 pieces about 20 feet lengths, 4 inch extra heavy galvanized without couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized with couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized without couplings; 150 feet, 6 inch black pipe; one 20 inch valve, hub end; one 16 inch valve, hub end; one 20 inch sleeve; one 20 inch x 20 inch x 16 inch T; eight 4 inch x 4 inch x 3 inch T, hub; twenty 4 inch valves threaded; ten 3 inch valves threaded; ten 4 inch crosses; ten 4 inch Ts; six 3 inch dresser couplings; thirty 4 inch dresser couplings; ten 4 inch saddles and double straps; ten 4 inch to 3 inch galvanized extra heavy reducers; and eight Cook strainers No. 20. The above is all new and will be sold at a bargain. John I. Bell, commissioner, Marshalltown, Iowa. 917

FOR SALE—One Olson Standard Paving Brick Rattler, nearly new, Price \$75.00. This rattler has been used for about a mile of paving and is in good shape. If interested write P. H. Jones, Clerk, Manning, Iowa.

FOR SALE—The city of Colfax, Iowa, offers the following: Two National steam pumps capacity 500 gallon per minute equipped with Mason Regulators. Two boilers tested to carry 85 pound pressure. One Cameron pump 5 H. P. One National pump 5 H. P. This equipment is in good condition. Will sell all or part. If interested write for further particulars or call and inspect.—H. F. Cassidy, City Clerk.

FOR SALE—18 horse power Watrous fire engine, good as new, complete with 30 foot 4 inch suction hose, same being replaced by high pressure water system. Write or wire at once, for full particulars. Russell E. Whipple, chief, fire department. Lehigh, Iowa.

FOR SALE—Two 2-horse double 50-gallon tanks and one either 2-horse or hand drawn 100 gallon chemical fire engine. Champion make, and in good condition. Inquire Chief Kellogg, fire station No. 1 Sioux City.

FOR SALE—Bates & Edmonds 35 H. P. upright engine, gasoline or kerosene, 2 cylinder, all complete, in good shape. Have installed transmission line current and have no use for engine. Address Percy Lyon, Clerk, Dike, Iowa. 617

FOR SALE—Having completed arrangements with a neighboring city to furnish our electric current we offer the following at a bargain. One 25 horse power special electric Fairbanks Morse Engine. One 20 K. W. Peerless Generator. 60 Amp. hour battery and switch board instruments. Everything in good condition. Address Town Clerk, Hudson, Iowa

PAINTING—If you have water tower or anything in similar line you want painted, write W. O. Potter, Fredricksburg, Iowa

FOR SALE—Cities wanting or needing a milk laboratory apparatus can get a bargain by addressing, John Berwald, Mayor, Davenport, Iowa. 107

WANTED—Second hand 10,000 to 16,000 gallon storage tank for gasoline. Lock box 235 Sheldon, Ia.

FOR SALE—A number of good gas meters. Will be sold at a bargain. W. D. Hanna, Clerk, Winfield, Iowa. 57

Waterloo reports that the candidates are placed on the ticket by petition under the various names elected by the different tickets. In the last two elections the tickets have been named after the candidates for mayor heading the ticket.

The city of Pella reports that previous to the last election, they had always drawn party lines, but that before the last election the central committees of the republican and democratic parties for the city had a meeting and decided to do away with party lines. The party chairman published the statement of the action taken. This statement was as follows:

The city central committees of the democratic and republican parties met in joint session on February 22, to advise ways and means for the selection of candidates for the ensuing city election. After a due consideration of the matter it was decided that a non-partisan primary election be held and conducted under the method as embodied in the following resolution which was unanimously adopted:

Whereas, we consider the best interests of our city will be served by obliterating all party lines and eliminating party names from the ballot in conducting our city election, therefore,

Resolved, That we substitute therefor, two tickets to be known as a Citizens' party and a People's party.

That a primary election be held at the New City Hall, Wednesday, March 14, 1917, from 1:00 o'clock p. m. to 8:00 o'clock p. m.

That the following rules for conducting aforesaid primary and for filing of names of candidates shall apply:

Petitions for nomination shall be signed by ten qualified electors of the city of Pella, with the exception of the ward aldermen which shall be signed by five electors from their respective wards.

All petitions for nomination must be on file in the office of the city clerk not later than 6:00 o'clock p. m. Saturday, March 10, 1917.

The names of all candidates filed for each office shall then be printed on one ballot under the head of the office for which their petitions for nomination have been filed, and the selection of the successful candidates determined as follows:

The candidates for the offices of Mayor, Treasurer, Assessor and one Alderman from each ward receiving the highest number of votes in the primary election shall be the nominees of the Citizens' party, and the candidates for said offices receiving the next highest number of votes shall be the nominees of the People's party. The two candidates for the offices of Alderman-at-Large receiving the highest number of votes shall be the nominees of the Citizens' party, and the two candidates receiving the next highest number of votes for said

offices shall be the nominees of the People's party.

That a copy of these resolutions be published in the three weekly newspapers of this city for the two consecutive weeks following the date of this meeting, as due notice to the electorate of the city.

The real facts in regard to municipal elections in Iowa are, that while a few cities and towns are supposed to draw a party line in the municipal elections, that in reality the party lines are not drawn and even in most cities where republican and democratic tickets are nominated that the people vote for the man, rather than for the party.

Efforts have been made in recent legislatures to enact a general partisan law for all municipal elections but because most of the cities and towns are already holding non-partisan elections, the legislature has felt that there is no great need for such a law, as in reality such a law was already in force by common consent of the voters.

American Municipalities in War Time

(Continued from page 141)

ernment in regard to that matter shall have been worked out. The commandeering of supplies of food and coal and the fixing of prices should be done in accord with policies formulated to meet national or state rather than municipal conditions; and there have been some recent cases in which well-meaning mayors and sheriffs have found themselves within the grip of the federal law because of their unauthorized seizure of supplies intended by the national authorities for other places and purposes. Finally, one cannot too severely condemn the occasional acts of a few municipalities whose authorities in their misguided zeal have sought to serve their country by taking the law in their own hands. The brand of patriotism which confiscates land or the use of land for war gardens without paying for it, compels a man to buy a liberty bond under threat of bodily harm or imprisonment, or in any other way violates the constitutional rights of the law-abiding citizen even though his patriotic ardor be somewhat cooler than it ought to be, that brand of patriotism closely resembles the brand of justice dealt out by the mob in accordance with the uncivilized code of lynch-law. No municipality can afford so seriously to injure the great cause which it is trying to serve.

(Continued on page 158)

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Before embarking upon any form of patriotic endeavor, then, it is incumbent upon every city to judge carefully, in the light of such advice as it can secure from county, state or nation, in which of these three classes just mentioned that enterprise will fall. Thus and thus only, may it perform effectively its own peculiar duties, determine the things it may most efficiently do in co-operation with other agencies, and learn what it had best let alone. And all this to the end that its service may count for the very most in the winning of this great war.

OKLAHOMA ROAD IMPROVEMENTS

OKMULGEE COUNTY, OKLAHOMA, enjoys the distinction of having been the first county to go "Over the Top" in the improvement of the roads within the county.

About a year ago a proposition to issue \$800,000 bonds for the improvement of the Okmulgee county roads was submitted to the voters of this county with the result that by a substantial majority this sum was approved and the same were sold at a premium of \$46,000. Together with other funds available Okmulgee county will have approximately \$1,000,000 which will be expended in the construction of 52 miles of roads.

The board of county commissioners, Messrs. Harry Hart, chairman, Charles Odell and Joseph Liggett selected the well-known firm of Harrington, Howard and Ash of Kansas City, Missouri, to prepare the plans and specifications for the proposed improvements to be made, which plans and specifications were duly approved and adopted by the county commissioners and Messrs. George B. Noble, state highway commissioner, and Max L. Cunningham, state highway engineer. Under the plans and specifications bids were received December 17 for the improvement of 52 miles of roadway to be made with either Warrenite, monolithic fibre brick construction or Portland cement concrete, the bids for Warrenite being higher than those received for the brick construction, and the bids for portland cement concrete were the lowest.

After careful consideration of the bids received, the board of county commissioners, the state highway commissioner, state highway engineer and Messrs. Harrington, Howard and Ash, consulting engineers, unanimously recom-

mended that Warrenite be used as the form of construction and the contract for the entire 52 miles was awarded to the Western Paving Company of Oklahoma City, their contracts being for the construction of the foundation and surface only—separate bids being received for the grading, draining and other items entering into the construction, which contract was awarded to the Harrison Construction Company of Henryetta, Oklahoma.

MUNICIPAL OWNERSHIP A SUCCESS AT LINCOLN, NEBRASKA

The recent annual report of the municipal water and lighting department of Lincoln, Nebraska, shows the total receipts from the water department of \$225,229.53, and total expenditures \$170,241.97, leaving a credit balance on hand September 1st of \$54,987.56. The expenditures for the last year were made up of the following items: Operating cost \$69,933.41, construction cost \$88,439.76, interest on bonds \$3,825, water meters \$5,268.03, meter repairs \$2,365.78, supplies \$384.19, miscellaneous \$26.80.

THE MUNICIPAL OUTLOOK

In view of the fact that the government is asking all municipalities to cut down on new work for the coming year, this will be an excellent chance to get the finances in good shape. The municipal income will be about the same as in other years and with the expenses so much less floating debts ought to be paid up and the finances be in fine shape at the end of the year. Make this the object for which you work during this coming year.

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If you buy supplies from our advertisers whenever possible you will help yourself as it will enable us to give a better magazine. Without advertisers it would be impossible to publish American Municipalities.

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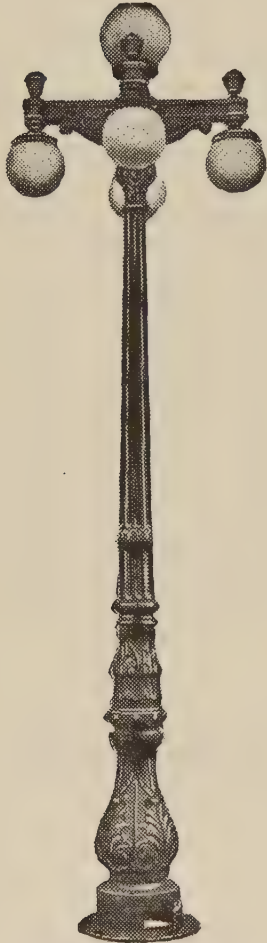
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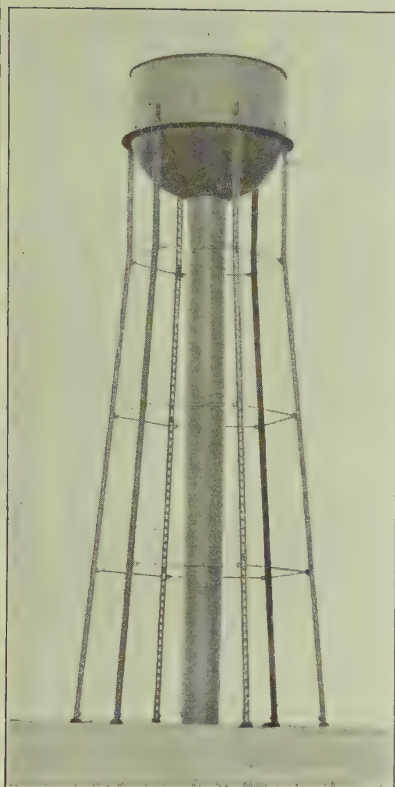


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*"In conscripting the economic man we must teach him discrimination until it becomes as much a habit with him to distinguish between perishable and durable goods * * * as it is for him to insure his buildings against a fire which may never come."*

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American Municipalities

March, 1918

Vol. 34, No. 6

Entered as second class matter December 1, 1911 at the Postoffice at
Marshalltown, Iowa, under the Act of March 3, 1879.

Published by
Municipal Publishing Company
Marshalltown, Iowa

Frank G. Pierce, Editor

Subscription Price, - - - \$1.00 per year
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Resolution Adopted by League of Iowa Municipalities

That without evasion or reservation, we do promise that our every word, act and deed shall be in support of our President, our Governor, our Sons and Brothers,—the Sons of the Republic—and their Allies across the sea who are fighting the battle of liberty and freedom, the battle of the weak against the strong, of right against wrong.

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COMMENT

Every citizen and especially every municipal official should take an interest in the coming primaries.

We often take little or no interest in the primary and then wonder why some man is nominated and elected.

Every one should do his share in naming the candidates of the party with which he is affiliated.

The Secretary of the League will appreciate copies of newspapers giving the results of the elections in the different cities and towns.

The Secretary should also have a list of the new officials as soon as possible after election in order that the new officials may receive American Municipalities.

You should carefully read the plan of war finance of the city of Rome, New York, and then try and adopt some similar plan for your city or town.

This plan is fair to all and saves a vast amount of work for those interested in war work.

If you publish your financial report in a local paper send the Secretary a copy of that paper.

Better begin now to organize for that clean-up campaign.

In this era of conservation we should conserve the man and woman and child power of the nation and the best way to do this is by providing healthful living conditions.

Just a few of the members of the League of Iowa Municipalities have not sent in their dues for the current year and this should be attended to at your next meeting.

If you elect an assessor this year you should give this office special attention as it is one of if not the most important office of all.

The assessor fixes the amount of our payment toward expenses of the city or town and every one should be interested in assuring a square deal in this respect.

Do not think of the assessor as an unimportant office because it is in fact of the greatest importance.

When in doubt you will not make a mistake in patronizing our advertisers as they can every one be depended on to give you value received.

WAR GARDENERS ADVISED NOT TO PLANT POTATOES

Unless your lot is peculiarly adapted to the raising of potatoes, choose some other product for your garden.

This is the advice to prospective "War Gardeners", given out by W. H. Steffens, expert employed by the university to instruct Toledoans in backyard gardening. Mr. Steffens is supported in this stand by Prof. Coontz of Waite High School, and Ray Doonan, county agricultural agent. Experience of many Toledo gardeners last year bears out the opinion that more profitable crops than potatoes can be grown on small plots.

"The market is glutted with potatoes", says Mr. Steffens. "Everybody raised them last year. We must not discourage farmers from raising them, and this is liable to be the effect if the urbanites plant them very universally. Furthermore, potatoes are primarily a field crop. They can be raised profitably only when cultivated on a large scale. Other vegetables, such as parsnips, onions, beans, cabbage, turnips, etc., are more easily grown and will repay better the effort needed for their cultivation. Besides these, small garden truck, such as lettuce, radishes, carrots, beets, etc., make excellent subjects for the small agriculturist."—Toledo City Journal.

MUNICIPAL WOOD YARDS

Every city and village in the state of Minnesota will have a municipal wood yard within a year, if plans undertaken by the state with the approval of the state fuel administration is carried out. The municipal fuel yards will be managed along uniform lines prescribed by the department. It would be an excellent plan for every city and town to accumulate a large supply of fuel wood during the coming summer as every cord of wood that is burned does just that much to relieve the coal shortage. Especially the cities and towns close to woodland should undertake this kind of a conservation business.

The council of Eddyville, Iowa, will at the next meeting take up the matter of submitting to vote of the people the question of issuing eight thousand dollars in bonds for the purpose of rebuilding the municipal electric light plant. The Eddyville plant was recently burned but the people decided to rebuild the plant and the council is taking action in accordance therewith.

CITY AND TOWN SCALES

As is well known by almost every municipal official that has in the past had a public scales, the 36th general assembly passed an amendment to the law providing for the inspection of automatic scales whereby the power of cities and towns to compel the weighing of commodities over the public scales was taken away from them.

The men in charge of the bill, in seeking this change, instead of doing as an honest man should, present the amendment to the section giving cities and towns the power over public scales and weights and measures, added to section 3009 of the supplemental supplement 1915 the following words:

"Provided, however, that products weighed upon any scale bearing inspection card, issued by the dairy and food commission, shall not be required to be re-weighed by any ordinance of any city or town under special charter or under the commission form of government, nor shall their sale, at the weights so ascertained, and because thereof, be, by such ordinance prohibited or restricted."

As the law further provides that all scales in the state shall be inspected by the dairy and food commissioner, it follows that the weighing of commodities on any scales in the state is all that is necessary, and that a city or town council cannot under this law compel the weighing of commodities on municipal scales.

This was a very unfair law pushed through the legislature by the coal dealers of the state, assisted by Mr. Barney, the dairy and food commissioner, and Senator Clarkson of Monroe County who was chairman of the senate committee on weights and measures at that time. An effort was made in the last legislature to secure the repeal of this law, but through the influence of Senator Haskell of Linn County and Senator Edwards of Story County, both coal dealers, and Senator Parker of Polk County, who is interested in coal mines, it was impossible to make much headway. If all of the cities and towns in the state where the people are interested in having a public scales shall before the primary secure pledges from the candidates that they will vote to repeal the above amendment, the same can be repealed at the next session of the legislature.

The people do not object to the scales but to the weighing. Wherever there is any question

of short weight it is not the question of scales, because the scales are inspected by the dairy and food commissioner, but the complaint is that the man manipulating the scales is not entirely honest, and this is the reason why public scales are desired. The repeal of this amendments of great importance to every individual in the state and you should without fail secure a pledge from the candidate before the primary that he will vote to repeal the provision.

THE LEGISLATURE

In the next few weeks candidates for the legislature in the various counties will announce their candidacy, and it is of the most vital importance that municipal officials throughout the state, and all those interested in the welfare of the cities and towns, see that candidates are brought out in every county who are favorable to the best interests of the municipalities, and who are not under the control of the corporations or any special interests.

Whenever it is possible to do so candidates should be prevailed upon to make the race who have had experience in municipal affairs, as men who have served as mayor or councilman or some other official in a city or town are more familiar with the needs of the municipalities than anyone else.

A man who has had no experience in municipal affairs has little or no conception of the need of the cities and towns, and is apt to believe that the average municipal official cannot be trusted to act in the best interest of the people.

It is a strange thing that many men who before election are just common men, with hardly average ability, become in their own estimation, just as soon as they are elected to the legislature, men of greatest wisdom and an experts on every possible question. The man who, before election is apt to ask for your vote with the greatest friendship, is the day after election apt to consider that on account of your voting for him, he has thereby become much more intelligent than you, and that your ideas are of little or no value.

The time to find out just where a candidate stands on the different questions affecting the people is before the primary, and when the different candidates ask you for your vote, find out if they know anything about municipal affairs, and if they do what their ideas are in regard to

the same. The most important thing to investigate is their affiliation with corporations of different kinds. Especially is this necessary in the case of an attorney, as very often an attorney is retained by some corporation, either a public utility corporation or some other kind, and naturally whether he desires to be or not he is more or less influenced by such retainer fee. If lawyers must be elected to the legislature, then by all means see that the lawyer who is elected is free from corporation affiliation and is inclined to take the side of the people on public questions.

Take an interest in the candidates before the primary, as usually a nomination, by one or the other party in most of the counties, is equivalent to an election. If possible secure a pledge from the candidate that he will vote for those policies that will best advance the interests of the cities and towns, if he will not do so give your support to someone else.

Many of the best friends the cities and towns of Iowa have had in the legislature have been farmers, and it is often much better to favor a farmer who is inclined to be friendly to the municipalities than to vote for some man in a city or town who is known to be friendly to the corporations. This is of the most vital importance and should be given the attention and careful consideration of every man in Iowa interested in the best development of the municipalities of the state.

MINNEAPOLIS MAYOR

Since the beginning of 1917, Minneapolis has had a socialist mayor—Mayor Van Lear—who was elected on a non-partisan ticket. Anticipations of a vigorous and progressive administration, particularly in the enforcement of liquor and vice laws and in handling the street railway franchise question, have not been fully realized. Two important obstacles to a successful administration appeared: (1) the mayor has from the first lacked support by the council, which has extensive control over the administration outside of the police department, and of which only four of the twenty-six members are socialists; (2) the support of the public opinion was greatly weakened by the mayor's pacifism and especially by his speeches for Mr. Hillquit in the New York mayoralty campaign.

Extracts From Rate Research

EAST ST. LOUIS LIGHT AND POWER COMPANY

The Energy Charge for Large Power has been increased. The former Energy Charge was:

- 1.5 cents per kilowatt hour for the first 2500 kilowatt hours.
- 1.25 cents per kilowatt hour for the next 2500 kilowatt hours.
- 1 cent per kilowatt hour for the next 2500 kilowatt hours.
- .75 cent per kilowatt for the next 7500 kilowatt hours.
- .6 cent per kilowatt hour for the excess.

The present rate for Large Power reads:

Demand Charge.

- \$1.50 per kilowatt for the first 10 kilowatts of demand.
- \$1.25 per kilowatt for the next 20 kilowatts of demand.
- \$1.15 per kilowatt for the excess, plus an

Energy Charge of

- 2 cents per kilowatt hour for the first 2500 kilowatt hours.
- 1.5 cents per kilowatt hour for the next 5000 kilowatt hours
- 1 cent per kilowatt hour for the next 7500 kilowatt hours.
- .8 cent per kilowatt hour for the next 35000 kilowatt hours.
- .7 cent per kilowatt hour for the excess.

MINIMUM CHARGE

Indiana Power and Water Company, Application for Authority to Change Rates for Electric Service and to establish Minimum Charges. Decision of the Indiana Public Service Commission Granting the Application. October 11, 1917.

The petitioner applied to the commission for authority to change its rates for light and power purposes in the towns and cities of Bicknall, Bloomfield, Worthington, Elnora, Odon, Dugger and Petersburg. Protests were made against a proposed minimum charge of \$1.00 per month on the commercial lighting schedule, alleging that the minimum charge will have the

practical effect of an increase in rates in the case of the small users of electric light.

"Protestants contend that patrons should pay only for electric energy they use, and aver that there are poor people who cannot well afford to pay more than what they now pay under flat schedules having no minimum, or the 50-cent minimum rate in Bicknell. The plea is strong and persuasive, but it is contrary to what has come to be determined by commissions and courts, to be the legal and economic basis for establishing reasonable rates, and also for just relations between the utilities furnishing service and the consumers or customers of such service. As though meeting the sociological plea presented in this protest, which is the same as in most instances when the question of establishing rates is before this commission."

The commission then quotes from the California Railroad Commission decision in the Los Angeles Gas and Electric Corporation case decided August 21, 1917. (Reported in 12 Rate Research 3). The commission says:

"The obligation resting on the service company is not alone that of supplying the light or power that is actually used. In the case of a community where half of the patrons of the utility are away half the year, would it be equitable and nondiscriminatory for them to leave to the other half the whole burden of carrying through the months of their absence the cost of maintaining the service, so that any day or hour they return they may press their electric button and have light, heat, or power? During all the period of their absence the utility has had to stand ready to serve them on demand and to do so, it has had to build a power house of maximum capacity and to maintain it; keep its lines in repair, its office organization, and even keep installed the meter on the absentee's premises, all to the end that no matter at what hour the patron demands service, he shall receive service.

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Rome's War Chest Association

By L. C. Busch, Secretary Rome Chamber of Commerce, Rome, New York

In giving to war activities, Rome, New York, recently went "over the top". Thus she says to the boys "over there": "We wish you the 'best of luck'; 'give 'em hell', for we have the money to do our 'bit'".

A War Chest Campaign was started to care for all war activities. The sum of \$300,000 per year for the duration of the war which is one dollar per month for every man, woman and child in Rome, figuring 25,000 as the population, was the goal. This basis was arrived at by totaling demands made upon Rome for all war activities up to the present and making liberal increase allowances. The campaign was so successful that \$350,000 was raised or \$50,000 more than was given out as the maximum and it is expected that \$50,000 more will be raised from those not seen or out of town.

Sufficient funds will be left from the first year's operation to offset increased demands in the future, it is thought. New residents of Rome each succeeding year, it is figured, will take care of losses by removals of subscribers and those who fail to pay their subscriptions.

The Rome War Chest Association was formed for the following purposes:

1. To concentrate all war activities' solicitations in one drive.
2. To have one disbursing agency for all such funds.
3. To eliminate spurious or unworthy pseudo-war solicitations.

For Rome the War Chest Association will make all subscriptions to the Red Cross, the Y. M. C. A., the Knights of Columbus and all other worthy activities during the year.

BASIS OF PLANS

The Association was incorporated under the laws of the state of New York with sixteen directors, three of whom were later elected president, vice president and secretary-treasurer, respectively. A constitution and by-laws were adopted. The Association has no paid officers or workers.

CAMPAIGN PLANS

An educational campaign of mass meetings, theater gatherings, factory assemblages, etc., with newspaper publicity was had. A commander in-chief, two generals, with nine captains each and ten "enlisted" men assigned to each captain, were appointed. The city was divided into eighteen districts with a captain and ten enlisted men in charge of each district. Canvassing blanks were printed and distributed to the "enlisted" men. Blanks showing name, address, place of employment and solicitor's idea of ability to give were filled in, then blanks were assorted to their occupational status. Factory employees were assigned to a factory committee; the retail district to a retail merchants committee; corporations to a corporation committee; wealthy residents to a special committee; and the balance of the blanks to a general committee. This preliminary work was done in one week's time.

SUBSCRIPTIONS SOLICITATED

These committees then made actual solicitation of the parties assigned to them using a specially prepared card for that purpose. The basis for subscription was as follows:

Incomes to		Per Month	Per Year
\$1200		\$ 1.00	\$ 12
1500	from, next	1.50	18
2000	above	2.00	24
2500	"	3.00	36
3000	"	5.00	60
4000	"	10.00	120
5000	"	20.00	240

Above \$5000 the proportion increased so that incomes to \$10,000 and upwards should take memberships equivalent to 10 per cent or more. The above figures were used as a minimum.

As subscriptions were made, a United States Government bronze pin inscribed with the words, "Enlisted for the War", and initialed, "R. W. C. A.", was given to the subscriber to indicate to other solicitors that the subscription had been taken. Home cards to be placed in home windows where subscriptions were taken,

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Causes of Cracks in Concrete Pavement

Influences Studied in a Test by Specialists of the National Government Office of Public Roads

Cracks in concrete pavements will likely be a less baffling problem to builders as the result of a seven-year study of their causes recently concluded by specialists in the Office of Public Roads of the United States Department of Agriculture. Observing particularly the expansion and contraction due to alternate wetting and drying of concrete, records were made of the values of these moisture and temperature movements under various conditions. A waterproof covering, such as coal tar, it was learned, prevents a rapid change in moisture content and greatly retards the expansion and contraction.

Other important results, which should be of value to concrete workers, especially highway engineers, are contained in a recent report of the investigation, Bulletin 532 of the Department of Agriculture, which will be sent free on application.

The report makes no attempt to apply the results obtained to the practical side of road construction, although certain general conclusions drawn, it is said, may be capable of immediate utilization by engineers. These conclusions follow:

1. Neat cement when allowed to dry, first contracts rapidly, then more slowly. The amount of contraction seems to vary with the cement, size of specimen and condition of atmosphere in which drying takes place. The amount at 28 days is about 0.1 per cent and at 6 months about 0.2 per cent.

2. Mortar contracts on hardening in air and expands on hardening in water. The contraction in warm, dry air at 28 days is about 0.045 per cent for 1:2 and 1:3 mortar and at 6 months is 0.078 for 1:3 mortar and 0.085 for 1:2 mortar. The expansion in water is 0.01 per cent for 1:3 and 0.017 for 1:2 mortar at 28 days, and at 6 months 0.013 for 1:3 and 0.02 per cent for 1:2 mortar.

3. Both 1:2:4 and 1:3:6 concrete contract on drying in warm, dry air from 0.02 to 0.04 per cent at 28 days and from 0.04 to 0.07

per cent at 6 months. When hardening in water an expansion of about 0.01 per cent takes place at 28 days and 6 months in 1:2:4 and 1:3:6 concrete.

4. The richness of the mix of concrete seems to exert a small influence on the contraction; the richer the mix the greater the change in length.

5. Concrete alternately wetted and dried may be made to expand and contract owing to these causes. The expansion due to wetting is more rapid than the contraction on drying. The thoroughly dried specimens of concrete do not recover their original wet length when immersed.

6. Concrete stored in the outer air and exposed to the weather does not contract to the same extent as the above described specimens except under very dry conditions.

7. A waterproof covering such as coal tar, prevents the rapid change in moisture content and greatly retards the expansion and contraction.

8. Re-inforcement decreases, but does not prevent, the shrinkage and expansion of concrete due to drying and has no effect on temperature changes. Re-inforcement can not, therefore, entirely prevent cracks, but seems to distribute them and keep them small.

9. Concrete roads are affected by both temperature and moisture. When the drainage is good and the sub-base not wet, the temperature effects seem to be most important. A wet sub-base may add to the temperature expansion by about 0.01 to 0.02 per cent. The restraining effect of friction at the base seems to be almost negligible when figuring temperature and moisture expansion and contraction. In very dry climates shrinkage due to drying must be added to contraction due to fall in temperature. A shrinkage of 0.04 per cent (one-quarter inch in 50 feet) is a safe allowance due to drying.

10. Temperature at time of construction of road should be considered in designing joints. Cold weather construction requires a full allowance for temperature expansion and, on wet

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Water Purification in the United States

By Professor Charles Gilman Hyde of the University of California, Before League of California Municipalities

MODERN SPECIFICATIONS FOR WATER QUALITY

Today no educated person can fail to realize the hygienic significance of water supplies. The "Safety First" principle has assuredly come to pervade our modern ideas and activities in this field as well as in many others. In consequence no phase of water supply engineering has been forced to make such progress as has water disinfection; that is, the removal from water supplies of those organisms which may cause or which may be intimately associated with human disease.

It may even be said that our American people are becoming almost finicky in the matter of the quality of water which they require to be purveyed to them. They are no longer content that the water supply shall be merely safe. It must be esthetically satisfactory. It must be clear and colorless and free from every suggestion of odor and taste. It must be reasonably soft.

Our demands are becoming progressively more strict, and waters which may have been considered as reasonably satisfactory a few years since may no longer be regarded with favor because they fail to meet some one or more of the particular requirements which have just been named as constituting a modern standard.

The right to make such demands must be conceded. The requirement of absolute safety must be unconditionally fundamental. The desire for esthetic perfection may properly be encouraged up to some limit which would seem to be unjustifiable under existing conditions because of the costs involved. What such a limit shall be must depend upon local conditions, especially with reference to the financial ability of the community.

If a community demands water absolutely colorless, as compared to water which has a little bisulphide color in it, some vegetable content, that community has a right to that. If a community demands a soft water, and is willing to pay the price of softening it, that community is entitled to that. It is simply a question of

whether they are able to pay for it. But undoubtedly fifty years from now you will be demanding waters which are more strictly pure with respect to these fundamental matters than the standard is today.

The art of water treatment has become so developed that waters of extreme types (i.e., such as those excessively polluted, turbid, discolored, hard, etc.,) may be rendered quite satisfactory even when judged by the most rigorous present-day standards. Such treatment will necessarily cost money, the extent of the expenditure being determined by the initial character and composition of the water and the nature or quality of the final product sought. Some types of treatment will often be found to be inexpedient at any given time on the ground of excessive cost, although at some more distant date such treatment may be demanded and the expense involved willingly met. For example, many very hard waters as public supplies are being tolerated today; but sooner or later the communities so supplied will demand a softer water. This will mean either the seeking of another source more favorable in this respect, or, and more usually perhaps, the softening by some proper method of the existing supply. Again, waters may be decidedly discolored by vegetable stain. Such supplies may be accepted for the time being with small remonstrance, but it is to be expected that at some future time this discoloration will become so generally objectionable as to render its removal necessary, or at least highly desirable.

Waters which are seriously polluted with the wastes of human life may be rendered hygienically safe through the application of well demonstrated processes of filtration and disinfection. Exceptionally turbid waters may be made brilliantly clear through coagulated subsidence, generally followed by rapid sand filtration. Waters deeply stained by organic coloring matter may be very effectively decolorized by the use of sulfate of alumina, generally coupled with rapid sand filtration and sometimes with oxidization

involving the use of chlorine or chlorine compounds. Supplies which are subject to serious odors and tastes due to the growth and decay of micro-organisms, so-called (i. e., algae, diatoms, protozoa, etc.), may be protected by covering the reservoirs, if sufficiently small, to exclude the light, or by dosing with copper sulfate if the reservoirs are large or unadaptable to covering; while by means of aeration, either alone or employed in conjunction with filtration, tastes and odors already developed in waters may be largely removed. Waters which are objectionable because of high iron or manganese content, and which are therefore subject to serious discoloration, or to the formation of rusty precipitates, may be effectively deferrized or demanganized by recently exploited processes involving aeration and subsidence or aeration coupled with a type of contact in filter beds of coarse material, generally followed by subsidence and rapid sand filtration. The addition of alkalinity-producing and even strongly oxidizing chemicals such as ozone, chlorine, or certain chlorine compounds, may sometimes be necessary. Waters high in dissolved mineral matters, commonly called hard waters, may be treated to render them completely soft as by distillation or by filtration through a eolite (a sodium-aluminum-silicate), or they may be treated to remove a major portion of the mineral matter by the application of chemicals, preferably lime for the removal of the excess carbonates, and soda ash for the removal or conversion of the sulfates. Turbid waters high in alkalinity may often be substantially softened by the use of an excess of lime as an incident to the process of clarification with coagulation (i. e., by the lime and iron sulfate process) preceding rapid sand filtration. Water supplies which are high in dissolved carbon dioxide may sometimes give rise to difficulties due to the rusting of iron pipes, or a dissolving action on lead pipes. Old service pipes are very little used in California, but very commonly used in other parts of the country. The conditions associated with this action are complex, and are related to the amount and character of the organic matter present, with the amount of dissolved oxygen contained, and with the hardness of these waters. Such difficulties may be avoided through proper treatment. The treatment may involve a process of so-called "hardening" by the use of lime or

soda ash to neutralize the free acid and part of the bicarbonates present; or it may comprise a very complete aeration through which the excess carbon dioxide may be dissipated or absorbed.

It must not be imagined that the processes so simply recited above are without complications, or that the present practice by any means reflects the progress which can be and will be made in this broad field. Many, if not all, of the processes at present employed must be considered to be in evolutionary stages. Nevertheless, they are now for the most part sufficiently developed to yield results which may be termed satisfactory when measured by present standards. They would not be satisfactory if measured by the constantly more rigorous standards which will certainly develop in the future. Such standards will comprehend higher efficiencies and lower cost.

In this connection, you will see that the same thing is going on in sewage treatments—higher efficiencies and lower costs. Tremendous progress is being made in the field of sewage disposal, as you learned this morning, and the same thing is true in water purification. So that fifty years hence our processes will be perhaps such that we will know exactly the difference as to results that we will get from a given sum of money.

Fortunately, because of the high character and wide scope of the many investigations which are now being made, and which will continue to be pursued in this field, a very significant development of the whole art and science of water purification may be expected.

Cause of Cracks in Concrete Pavements

(Continued from page 170)

sub-bases, for moisture expansion also. Hot weather construction theoretically requires no joints at all, even in wet sub-bases, as the temperature contraction exceeds the moisture expansion. However, the difficulty of keeping the cracks clear probably renders joints imperative.

Municipal ownership has made substantial progress in Texas during 1917. Among newer municipal undertakings which were initiated during the year are municipal slaughter-houses, municipal farms and municipal piers.

Rules for Special Council Meeting

Iowa Supreme Court Passes on Questions in Case from Clermont

The incorporated town of Clermont asserts that it has annexed certain lands owned by plaintiffs to its territory. The plaintiffs challenge the legality of this annexation. On their petition the district court issued a writ of certiorari to review the legality of the proceedings. Upon hearing it annulled the writ and plaintiffs appeal.

I. On the authority of *Moore v. Perry*, 119 Ia. 423, and some of our later decisions in school district cases, it is settled that, unlike statute requirements which are safeguards against the loss of substantial rights of the public, statutes are not mandatory which are mere directions as to method in the formal steps preparatory to an election at which there is the right and opportunity to accept or reject what such formalities present for action. That a proposition upon which the people have the final word does not reach them in a manner which is an exact compliance with the code loses the electors nothing of substance. Omissions to cross and dot do not, as seems to be contended, go to jurisdiction to bring on an election. The proceedings of town councils and the acts of town officers should be liberally construed, with a view to upholding the transaction of essential public business.

One complaint is, the court erred in holding that the resolution for the election was properly and legally signed by the mayor. Elaborating, appellant says that the notice of election and the proclamation of the result of the election were signed by the mayor, but the record of said meeting was signed by the clerk and not by the mayor; that while a copy of the resolution was by the mayor taken to the printer for publication and then signed by him in the office of and in the presence of said printer, this was a mere piece of paper to guide the printer in the publication of said notice, and there is no record that the signature was attached to the original resolution as recorded; that the record of the meeting does not show that the mayor ever signed said resolution "of record". In one view the con-

troversy over the signing by the mayor of the initial resolution is a moot one. The real dispute is on whether the fact that he signed it might be shown by an amendment to the return or by parol testimony, the contention being that the latter may not be permitted because a variance of the return, and that the amendment was not authorized. In other words, if the method of proof was proper it is established that the mayor did sign. Appellant insists the failure to sign went to jurisdiction and that without such signature there was no resolution which was effective and nothing to publish, and that publishing such unsigned resolution effected nothing. If failure to sign does not go to jurisdiction, the failure does not for reasons stated and presently to be stated afford basis for substantial complaint; for, if the signing WAS jurisdictional then additional evidence upon what was done on a jurisdictional point was competent. *Hatch v. Board*, 170 Ia. at 850. The statement that the clerk "made no record of said signature" we do not quite understand. We know of no requirement that the signature as a thing of itself shall be made of record and it seems to us that if the resolution be signed that that is all even literal compliance with the statute requires on that head.

Assume with appellant that there was no power to act until the mayor signed and it follows that oral testimony on whether he did or did not sign was rightly received. That being so, it becomes unnecessary to go into the further contention that though Code Section 4159 permits the return to be amended if the original return is defective, that here there was no defective return. The question then narrows to whether the court was justified in finding as it did that the resolution was signed. We think this is established by the testimony of the witness Scott; and it may be added to the statement that such testimony was competent, that it was not until after it had been given that any objection thereto was made, and the vital point of the objection was that the testimony was not the best evidence, which as

we have seen, is in any event not well taken, since it is the appellant's own theory that it was upon a point concerning which testimony additional to the return was permitted. It may be added further that the objection was not ruled on and that consequently we have no exception to proceed upon.

We have no quarrel with the very large number of authorities cited by appellant for the general proposition that the return is conclusive as to all matters questioned in the certiorari proceeding, and that the determination is to be made upon the return which imports absolute verity; and do not question the soundness of the decisions in other jurisdictions that the lower court can take nothing from nor add anything to the evidence after the writ is served. But, notwithstanding these generalities and applications of it in other jurisdictions upon their own statutes, we are controlled by our own statutes and our interpretations of them, and therefore, hold that there was no improper dealing with the record in this case.

Though appellant contends the fact is immaterial, we are of opinion that the vote actually cast on the annexation is worthy of great consideration upon whether any substantial wrong was done the electorate by any alleged irregularity in the steps through which they were invited to act. On the election of town officers only 126 votes were cast, while on the election in review 127 votes were cast for annexation, 105 being in favor thereof and 14 against. The central object of all the steps is to procure an expression upon the final issue and where, as here, that was accomplished we should not be hypocritical as to the steps. The alleged failure of the mayor to sign the resolution requiring an election did not induce a single voter to refrain from voting nor mislead one of them. This is inherently manifest. Moreover, the resolution which was published and which was the only one seen or to be seen by the voters did purport to be signed by the mayor. We think this complaint is not tenable and was rightly overruled.

We agree with the trial court, and indeed see no serious room to question it, that all publication required was duly made.

II. We have no quarrel with the general definition of what constitutes notice. As a general proposition whenever notice is required

or authorized by statute, written notice is understood. 29 Cyc 1117 and Citations under Note 33, though this court has been inclined to limit this to notice in judicial proceedings.

We do not question the general proposition that in the absence of notice to even one member of the council, a special meeting may not legally act even though all the other members of the council are present and concur in the action; nor are we out of accord with the reasoning for this rule, to wit: that the majority may not presuppose that the absent member might not change his views were he present, and that he may not be eliminated by taking steps to keep him away or by deliberate failure to take steps that might insure his presence. It seems to be conceded that one councilman was out of the state for substantially a month, had been away something like two weeks when the resolution was adopted. There is an affidavit in the record which perhaps should not be there, but its presence is not objected to nor challenged before us. From it, it appears that the absentee knew before he went away there would be a special meeting for this purpose, and that he would have favored it had he been present. He went away knowing this, and at the time of the meeting on March 5th was in Oregon, and could not have attended if he had been notified of the special meeting.

Dillon, in his work on Municipal Corporations, recognizes the above rule says (Sec. 534):

"An order to serve all is not sufficient; all, if practicable, must be served, but if the party entitled to notice is absent from the municipality, and it is impracticable to give him notice in proper form, the service of notice is excused."

In *State vs. Kirk*, 46 Conn. 397, the court held that a good reason was shown why actual notice was not given. The member absent was not only gone from the state, but his whereabouts appear not to have been known until afterwards. The facts upon which lack of applicability might be urged is that a notice in writing was left at the store of his son, where the alderman was in the habit of visiting every day when in town. The court says no other notice could well have been given, and the law never required impossibilities. We fail to see how the leaving of this notice at the store was better than none. It was one that could not possibly reach the one to

be notified in time to bring him to the meeting. *Pike vs. Rowland*, 94 Pa. 238, holds that notice of special meeting is necessary, it must be personally served, if practicable, upon every member entitled to be present.

We do not lose sight of the fact that the statute, Code Sec. 668, par. 4, provides that notice of such meetings be given to each of the members, and be personally served, or left at his usual place of residence. In this case it does not appear whether the absentee alderman had a usual place of residence. But it would not change the essential situation if he had had. Leaving it at such place of residence would not and could not have brought him on from Oregon, and to this meeting. There is but one way to hold with the appellant, and that is to declare that this statute is absolutely mandatory, and that all reason must fail in its consideration. To do this, we must disregard the weight of authority and, in effect, overrule the holdings elsewhere, and in this jurisdiction, that notwithstanding the language of the statute the notice need not be served if the member attend the meeting. We apprehend, of course, how unreasonable it would be to demand notice to one who came without it. But the unreasonableness of the requirement can either be taken into consideration whenever there is an unreasonableness presented, or else the question whether carrying out the words of the statute would work an unreasonable result must not be touched, no matter what the unreasonableness is. We think the trial court selected the better of two alternatives, and that where, as here, an alderman knew a meeting would be had, knew what was to be done at it; approved of the proposal, and would have supported it had he been present—it would be straining the statute beyond the uttermost pale of reason to hold that failure to serve him with notice of that meeting at a time when he was thousands of miles away destroys the act of a municipality supported by the overwhelming majority of its electors.

This is so of a further requirement of the statute that the service of a notice shall be recorded. If that, too, is mandatory instead of directory, the failure to record the service would vitiate the proceedings, though every member was duly served, and even if all members attended.

In our opinion *Barclay vs. School Township*, 157 Ia. at 183, does not militate against these

our conclusions. The vitals of that case is that no notice of a special meeting was given a director who was in fact at home, and that it was not given because the secretary was misled by erroneous information, derived from another, that the director was not at home, and could not be reached personally, whereupon the secretary deposited in the mail, properly addressed to the director, a notice of the meeting, which the director in fact never received. He left home on the morning of the following day and was absent from the state until after the proposed meeting was held. It is upon this it is decided that the fact that the secretary made what was, under the circumstances, as they appeared to him, reasonable effort to give notice, and that, later, service would have been unavailing, will not meet the statute.

It is plain that, in our opinion, the judgment of the court below must be affirmed.

ROAD DEVELOPMENT PATRIOTIC DUTY

Discussing suggestions that all road work in the state be stopped during the war period, Chairman Benson of the state highway commission of Oregon, says he had observed that the suggestion comes from those who have always been opposed to highway development and other public improvements.

"Owing to the necessity of increasing our transportation facilities," he continued, "it seems to me that it is a high patriotic duty to go ahead with the improvement of our main trunk roads. In this connection, I note that the Council of National Defense has appointed a highway transportation committee to work in co-operation with local highway authorities to relieve the burden of the railroads through the development of a greater use of the highways and inland waterways.

"It is proposed to encourage the use of motor trucks for short distance transportation. This would strongly indicate that the National Council of Defense would not approve the suspension of reasonable highway work and further add to the railroad congestion.

"Of course, there is reason in all things. Any unnecessary work should not be undertaken, but where an improvement will be instrumental in enlarging our facilities to bring our food products to market, thus aiding the defense of the nation and assisting our allies, it ought to be continued."

Municipal Finance and Pavement Construction

By George C. Warren, Boston, Massachusetts, Before American Society of Municipal Improvements

This is one of the most important subjects with which municipal officials have to deal, especially in these times of public demand for more and better pavements and roads, following the advent of the automobile for pleasure and business purposes. It is also, in the writer's judgment and observation, one of the most neglected subjects, to the extent that the tendency is to continue operations under systems and laws inaugurated a quarter or half century ago, which, though adequate and best at the time, are now quite uneconomic. The tendency in each locality is to patch up the old systems and to avoid a general change of system, with the result that in many places financing is unnecessarily costly and in others the system is such as to make it practically impossible to finance for improvements to the extent the public interests demand improvements should be made.

The several systems of finance for street improvement in the order of undesirability as the writer sees them are:

- I. The municipality pays the entire cost.
 - a. On a bond basis.
 - b. On a cash basis.
- II. The municipality assesses the whole or portion of the cost on the abutting property improved by the pavement.
 - a. Cash.
 - b. On a deferred payment or installment plan.

Let us consider each of these systems and their practical results.

I. MUNICIPALITY PAYS ENTIRE COST

If the entire original cost of pavement and renewals is paid by the municipality out of its general funds, it necessarily means either or all:

- a. Streets so paved and maintained as to inadequately meet the public demand.
- b. A high tax rate at which officials and taxpayers always shudder.
- c. A high bonded indebtedness with which the taxpayers must reckon sooner or later.

In some municipalities the system for a

quarter or half century or more has been to assess the abutting property owners either with the entire cost or a portion of the cost of the first pavement, the municipality paying the entire cost of repairs and renewals. The iniquities of this system are:

- a. The tendency of abutters to urge and use every possible influence toward the adoption of the cheapest, which, generally speaking, means the poorest, type of construction which will "get by" the officials and the assessment period.
- b. It only very temporarily overcomes the difficulties of excessive general taxes and bond issues.

In Boston the cost of the first improvement is assessed on the abutting property and all subsequent repairs and renewals are paid for from the general budget. The results are:

First, the almost universal tendency of property owners to accept and urge the adoption of the cheapest form of roadway and sidewalk construction which can be laid. In connection with the opening of a street in which I am interested, the other abutters favored gravel roadway and sidewalk, and when I protested that this class of construction is entirely inadequate to meet modern traffic conditions they said:

"But this city must keep the road in repair, and if later a better class of improvement is necessary, we will not be assessed for the cost."

Second, there are so many miles of roadway thus inadequately improved it is impossible for the city out of its limited tax budget and limit of bonded indebtedness to lay modern pavements to anything like the extent they should be laid to meet present traffic and economic conditions, and at the same time meet the enormous expense necessary to keep the old roadways in safe, passable condition.

As a result Boston now has approximately 400 miles of antiquated macadam roads, extremely expensive to maintain in even passable condition under present traffic conditions and affording no further economic use than as a foundation for a

modern wearing surface adaptable for such a foundation. Such reconstruction of the macadam roads in the city of Boston would entail a bond issue of between ten and fifteen million dollars. If such bond issue were on either serial or sinking-fund ten-year basis (a longer term than which would be uneconomic) it would necessitate a tax levy of, say, one and one-half to two million dollars per annum to meet principal and interest. This additional burden to a municipality, the outstanding bonds and tax rate of which are about as high as economic, efficient finance would permit, is hardly practicable.

New York City has much the same law as Boston with respect to initial assessments and subsequent maintenance of the pavements, with the result, like Boston, that almost universally the initial pavement adopted was gravel or stone macadam and other cheap types of construction.

New York, however, has more generally succeeded in the reconstruction of pavements with those of more modern type, but has done this through the issuance of millions and millions of bonds for long terms of years—very much longer than the reasonable life of pavements under the prevailing traffic conditions, until now it has been publicly stated that New York has many miles of streets which have been reconstructed two and sometimes three times from the proceeds of such long-time bond issues, before the first bond issues have been paid.

So very few municipalities pay the entire cost of pavements from the general fund on a cash basis, except from the proceeds of bond issues, that a discussion of that as a general plan for improvement of streets is not worth while.

The fact, as the writer believes, that payment for street improvement or renewals entirely from general funds of the municipality is a very uneconomic system of finance, is perhaps best proven by the fact that, naming a city which has followed that plan for a considerable number of years, you have almost if not absolutely to a certainty named a city which is either poorly paved or is carrying the load of a heavy bonded indebtedness created for the laying of pavements. Generally both such undesirable features are the result of such a system.

II. BY SPECIAL ASSESSMENT

There are many different systems of payment for street pavements in whole or in part by "Special

Assessment" against the abutting property.

In St. Louis, Missouri, the entire cost of all street pavements and renewals is assessed on the abutter, and the contractor is given "tax bills" bearing six (6%) per cent per annum interest against each individual property. Although the interest is at a high rate for a municipality enjoying high credit, and although the tax bill is a lien which takes precedence over mortgages and all other liabilities except other city taxes, thus providing the very best security, the tax bills are not salable except at a heavy discount, because investors generally do not want to carry paper, the collection of which requires so much red tape, and is issued in such odd amounts (many of them quite small) payable in annual instalments.

If St. Louis and other municipalities enjoying good credit would guarantee its Special Assessment paper and the cities themselves dispose of the securities, pay the contractor cash and collect the assessments, they would not only save the taxpayers a very considerable portion of the interest rates, but would also be able to sell the securities at par or a premium and thus save in lower contractors' prices the discounts and carrying and collection charges which the conservative contractor must include in his contract prices when he is paid in paper for which he must find a market.

The foregoing briefly outlines three extreme examples of what seem to me to be very unwise systems of financing street improvements. Between them are all shades of variation in vogue, some of them such that the contractor has to discount the paper given him in payment for his work as much as 15 per cent, all of which, it is needless to say, comes out of the pockets of the taxpayers in either higher cost of work or poorer construction, or both, and certainly proves a most unwise system of finance.

For thirty years the writer has, in connection with the street paving business in which he has been engaged, given a great deal of thought to the best method of financing street pavements as practiced in the hundreds of municipalities in which the companies have done street paving business during that period. Recognizing the fact that one of the most difficult governmental problems is that of an equitable apportionment of taxes and that, under any system which can be devised, there will be more or less inequality, he

has come to the conclusion that the most economic, efficient and equitable system which has been devised for financing the original construction and permanent maintenance of first class streets is briefly described as follows:

1. Assess the greater part (say two-thirds to three-fourths) of the original cost and cost of renewals and resurfacing against the abutting property. This on the theory which cannot be questioned as an almost universal fact that:

a. The abutting property is directly improved in value and comfort very much in excess of the cost of such assessment.

b. The general public has the use of the streets and should pay a portion of the cost of construction.

2. The city, from its general funds, to pay the entire cost of minor repairs up to the time that the street requires entire renewal or resurfacing.

3. Never issue bonds or other municipal paper to cover either the general tax or the special assessment portion of the cost of street pavements for a term greater than the reasonable life of the pavement and a good factor of safety. In the writer's judgment, ten years is a proper general period for such municipal paper. If it is argued that pavements should last more than ten years, my answer is: "Granted, but it is better to be safe than sorry". It is a capital principle to expect that a pavement will be in existence for several years after it is finally paid for, rather than to take the chance of having two or more successive pavements unpaid for on the same street.

Even though a longer term than ten years is provided for the general tax portion, never under any circumstances permit the property owners' share to run for more than ten years with interest.

4. Make the assessments absolutely payable in annual instalments with interest, with the privilege on the part of each taxpayer to pay in cash if he so elects within one month after the levying of the assessment.

5. Preferably issue serial bonds for the portion of the cost to be paid for out of the general funds of the city. It is abundantly proven that serial bonds are far safer and more economical than sinking-fund bonds. Of course, no bond issue should be made without adequate plan for annually raising funds to meet the bonds on maturity.

6. Be sure to make the rate of interest high enough so that the bonds will surely sell at par or better. If the bonds sell at a premium, the premium can be used to retire a portion of the bonds at the earliest legal opportunity and no loss entailed.

7. Make the rate of interest to the abutter on special assessments within $\frac{1}{2}$ per cent as low as the city pays on the bond, thus making the assessment as easy as possible to the assessed abutters. This $\frac{1}{2}$ per cent is ample to pay the cost of collection and possible loss on irregular assessments if the city collects its special assessment through the regular financial channels, machinery and laws for collecting taxes.

8. The city pledge its credit for the payment of its Special Assessment bonds, which it can do without loss because it is secured by the assessments, which are a first lien against property far more valuable than the amount of the assessment.

9. Make the Special Assessment bonds, as well as general bonds, in round amounts payable at certain dates with coupons covering both interest and instalment payments of principal. Those dates as to the assessment bonds to be about one month after the due dates of the corresponding assessments. This gives the city one month to "exercise the power of the law" against any taxpayer who defaults on prompt payment of any assessment.

The writer formerly resided from 1888 to 1903 in the city of Utica, New York, which now has a population of about 90,000, and had something to do, by way of suggestion, with the plan of finance for street pavements which was adopted in that city. He feels a pride in the resulting safe, sane, equitable, easy system now in vogue for twenty-five years in Utica. Note the practical result under the system, which, briefly stated, is as follows:

1. The city pays one-third the cost of all original pavements and all renewals thereof, and provides for this out of the annual tax budget, the paving fund thus created being an annual tax of less than an average of \$1.00 per capita of population, which is not enough to hurt any. No bonds are issued for the city's one-third

2. The remaining two-thirds of the cost of original pavements and all renewals is assessed on the abutting frontage, each individual person

assessed being given the option of paying the whole or any part of his or her assessment in cash, or deferring payment for six annual instalments with 6 per cent interest. To recover the deferred assessments the city issues six paving bonds, each for one-sixth of the whole amount of such deferred assessments, and payable in one, two, three, four, five or six years with 5 per cent interest, the due dates of the bonds and assessments being co-incident. The city loses nothing on account of the credit it gives the taxpayers, and the premium the city gets for the bonds and the 1 per cent extra interest charged the taxpayers more than pays all clerical or other expense of the city in the transaction.

3. The city at large pays for minor repairs required between the time of laying the original pavement and the necessity of reconstruction or resurfacing.

The result of this system, after twenty-five years' practical trial, is that there are few cities in the United States and Canada which, as a whole, are as well paved today as is Utica, practically every street in the city now having a modern pavement, and the work having been done so easily and steadily that no one has felt the financial burden.

The practical working out of the system can be illustrated by the typical result on Oneida street. In 1892 the street was newly paved at a cost of about \$200 per lot of 50-ft. frontage, the assessment being payable in cash or at the option of each taxpayer in six annual instalments of about \$33 with interest, say \$35 per year, for six years, including interest. The last instalment of the assessment was paid in 1898. Then came thirteen years' respite and in 1911 the street was resurfaced at a cost of about \$90 for each lot of 50-ft. frontage, or if any desired to pay in six annual instalments at a cost, including interest, of less than \$16 per annum. Note that all this—a thoroughly well-paved city—has been accomplished by a general tax of less than \$1.00 per capita per annum.

Of course, it may properly be said that in larger cities, where traffic is more congested, the relative cost would be somewhat greater and the necessity of pavement renewals more frequent, but it may also be said, in answer, that the renting and selling values in the larger cities are enough greater so that the relative burden of such

a system could be no greater than in smaller cities.

The city of Portland, Oregon, having a population of 210,000, is another example of a well-paved city. It has more than 150 miles of bitulithic pavement, about 100 miles of asphalt pavement, large areas of granite block, vitrified brick and creosoted block pavements, making a total of about 350 miles of well-paved streets, practically all of which have been built within the past fifteen years. The entire cost of this vast area of pavements, together with curbing and sidewalks, was assessed against the property owners abutting upon the streets on the front-foot basis, the city simply extending credit to the property owners and holding liens on the property as security.

Upon completion of each contract the city issues certificates or tax bills against each of the abutting owners for their pro rata part of the cost, which tax bills are payable within thirty days of their issue. The tax bills are delivered to the contractor in payment for the work. Each property owner may pay his tax bill to the city treasurer within the thirty days, or he may execute an application to have the payments extended so that one-tenth, with interest at 6 per cent, will be payable each year for ten years, in which case he is required to assent to the amount of the assessment, agree to pay as it becomes due, and further agree that the assessment shall be a lien upon his property until paid, and waives all right to contest the assessment.

These liens take precedence over mortgages and all other obligations except direct city taxes. The city then issues 5 per cent bonds, which are direct obligations of the city, secured by the liens on property, to the amount of the face value of the assessments which have been assented to. These bonds usually sell at a substantial premium, and the proceeds thereof, together with the cash payments received from those not desiring extended payments, are used to pay the certificates or tax bills given to the contractor. City bonds so issued and secured are not considered to come within the debt limit of the city. It should be noted that the premium received from the sale of bonds and the additional interest of 1 per cent per annum paid by the property owners provide more than sufficient funds to pay the cost of all clerical work, advertising and printing of the bonds.

Tax bills which are not paid when due,

and where no application has been made for extended payments, are turned over to the legal department for collection in the same manner as other delinquent taxes. The city of Portland, Oregon, paving bonds have always had a ready market among eastern investors and doubtless many of them are locked up in the coffers of some of our Boston citizens who are opposed to the city of Boston borrowing money for use on the streets.

Under the Portland plan a person owning a lot on a 30-ft. street having a frontage of 50 ft. can secure a first class pavement costing \$2.50 per square yard for the moderate sum of \$208.33 and can pay for same at the rate of \$20.83 per annum and interest for ten years. The value of the property is usually immediately enhanced by more than the total cost of the pavement, and the property owner knows that he is receiving a personal benefit from the expenditure, and further that he is not contributing to the cost of pavement in front of the property by others for which he receives comparatively little direct benefit.

What owner of a home would not cheerfully contribute the small cost of thus improving his property? Could not the owner of a property which is rented secure in additional rent more than the moderate cost of the improvement? The paving of Portland, Oregon, has been accomplished at the sole expense of the property owners in spite of the fact that no street can be paved except with the consent of the abutters owning a majority of the frontage on the street. Furthermore, the law gives the property owners the right to select the kind of pavement they desire for their street. To reiterate, about 350 miles of modern pavements have been laid in Portland during the past fifteen years at the entire expense of the abutting property owners, the owners of a majority of the frontage on each street making the decision: First, what streets shall be paved; second, what kind of pavement shall be used in front of their property.

The writer's contention is that the Utica and Portland systems of financing for pavements are, with modification, easily and equitably adaptable to other cities and to nearly all other factors of the broad matter of "City Planning"—parks, boulevards, pavements, sewers, shade trees, etc.—and that most municipalities of the United States and Canada can well look to Utica,

New York, and Portland, Oregon, for some good, sound, sane lessons in municipal finance for street pavements.

Rome's War Chest Association

(Continued from page 169)

read as follows: "We helped fill the War Rome Chest. Have you?"

All subscriptions are payable at the Rome Trust Company to the treasurer, as the subscriber has indicated on his subscription card.

A "hold-over" committee was designated to see and secure subscriptions from all those citizens who for any reason were not seen in the general canvass of the city. Newspaper stories, advertisements, posters and window cards were used. A large iron bound chest, located on the top of the Rome Trust Company building illuminated at night, showed the result of each of the five days' campaign daily which comprised the second week's report. Noon "Dutch Treat" luncheons were held at which committee reports were read. In addition to display on the Rome Trust Company building, these results were also tabulated daily and shown at the meetings.

Four Canadian soldiers talked at meetings, Captain A. P. Simmons, detailed by the War Department, spoke at a noon meeting as did Congressman Snyder of the Rome district, Chandler of New York City, and Father Wm. M. Dwyer, former New York State Chaplain, Knights of Columbus, and others.

DISBURSEMENTS

An investigation committee of five leading Rome citizens hear all requests for war activities aid and makes report to a disbursing committee of sixteen, a majority of which decides finally upon such requests. All citizens are expected to refer solicitors for war activities to the investigation committee. Any citizen who subscribes to the War Chest is automatically released from making subscriptions to any war activities. Sales of Liberty Bonds and Thrift Stamps are of course not included.

War Chest funds are not used for any purposes other than war activities. The plan is applicable and may be used anywhere. The plan is an amplification of similar ones used in Canada and other American cities.

More details will be furnished by the Rome Chamber of Commerce, Rome, New York, on request.

Changing Gas Standards

Charles A. Mann, Ph. D., Associate Professor of Chemical Engineering, Iowa State College, Ames

Almost every day some gas company makes an appeal to city officials to change the standards of the gas as regards heating value and especially illuminating value, and on the claim that the price of raw materials has increased because of the war that the company cannot produce the same quality of gas as formerly without a serious loss. This request on the part of the gas companies has in a way been encouraged by the United States government because the government is in dire need of toluol, a raw material for the manufacture of a powerful explosive which is obtained by stripping the gas of light oils. As a result both the illuminating value of the gas as well as the heating value are lowered. However, the request for lower gas standards was inevitable because of the continual increasing cost of raw materials.

The requirement of illuminating standard is a 'relic of the ancient gas industry'. With the open flame gas burner which was first used for lighting with gas it was necessary to have a gas which gave a luminous flame. Luminosity is due to fine carbon particles in gas which have been heated to incandescence. These carbon particles do not exist as such in the gas but are produced in the burner by breaking down light oils which are present in the gas as a sort of fog or vapor; this breaking down is done by the heat produced in burning the other constituents of the gas, in a similar way as soot forms from a smoky lamp or kerosene stove. In the latter cases the escaping soot has not been heated to a high enough temperature to make it incandescent.

Today the gas mantle has almost entirely replaced the open flame burner. Everyone is acquainted with the increased luminosity of the mantle over the open flame burner. This is due to the ingredients of the mantle and not to the illuminating components of the gas. When such a mantle is placed in the flame of the non-luminous alcohol lamp, it glows and gives off its white light. The hotter the flame the more luminous will the mantle become. It is clear, therefore, that it is of more importance to have a gas of high

heating value than one of illuminating value. In fact, a gas which contains a high proportion of the light oils required for luminosity is a disadvantage where the gas mantle is used, because these light oils are likely to carbonize, clogging the mantle with carbon and producing a poorer light. This carbonizing effect can be noticed where a pilot light is used for the burner. Many times the opening in the end of tube is entirely closed because of the carbon which is deposited at this point.

As for the domestic gas stove, it is the heat in the gas that the consumer is after and not the illuminating value. The heat in a gas is expressed in British Thermal Units per cubic foot of gas, the British Thermal Unit, abbreviated B. T. U., being the amount of heat which will raise the temperature of a pound of water one degree Fahrenheit. It is true that the constituents which increase the illuminosity of a gas also increase its heating value but not merely in the same proportion. Where the illuminating value of a gas may be doubled that is changed from a candle power of 12 to 24 candles, the effect on the heating value will be to raise it between 1 per cent and 8 per cent with an average of about 5 per cent. If we reduce by 50 per cent in illuminating value a gas of 22 candles and a heating value of 600 B. T. U., this heating value will be lowered by about 30 B. T. U., producing gas whose heating value will be 570 B. T. U. A gas of high illuminating value must contain a high percentage of light oil or illuminants.

Because these oils are in the form of fog it is difficult to keep the percentage constant, inasmuch as a lowering of temperature will condense the fog very much as a steam is condensed, or a rise of temperature will increase the fog. From a manufacturing standpoint likewise it is difficult to keep the quantity of light oils constant and as a result the gas is exceedingly variable as to lighting and heating value. With the ordinary type of appliance, like the gas stove, the amount of air drawn in by the burning gas is so adjusted that for the

grade of gas used the proper amount of air is supplied to completely burn it with the greatest quantity of heat resulting.

If the amount of light oils in the gas should increase, more air would be required to completely burn the gas in order to obtain the greatest number of heat units; in this case the amount of air supplied by the above described adjustment would not be sufficient to burn all of the gas. This would result in a waste of gas, as it would not all be properly burned. Should the light oils decrease, too much air would be supplied to the burner, cooling down the flame and reducing the amount of useful heat. For a gas with a heating value of about 560 to 570 B. T. U., the composition of the gas can be held uniform within about 5 per cent, thus allowing a constant adjustment of air supply in the gas appliance and effecting a more uniform heat production from the gas. If more people understood how to regulate the gas burners it would not be so serious a matter to have the gas vary but as this is not the case it is better to have a permanent gas of lower heating value with more constant heat obtainable.

With these points in mind we can consider whether the gas companies are justified in their request for lower gas standards and in many cases for an increase in the price of the commodity.

Practically only two types of gas for general city use are made in Iowa, coal gas and carburetted water gas. Coal gas is the forerunner of carburetted water gas and is still made in many cities but it has a number of disadvantages over carburetted water gas. It is made by heating coal to a high temperature in horizontal retorts out of contact with the air, and the gas coming from the coal, after purification, is the coal gas on the market. The retorts used are made of clay or silica set in brickwork in such a way that the heat resulting from fuel burning under the retorts plays around the retorts developing high temperature in them. The high temperature drives off the gases from the coal leaving a residue which is called coke. But special coals are necessary for making coal gas in order that a large amount of gas (usually 10,000 cubic feet) may be produced from a ton of coal placed in the retorts and at the same time make a salable coke which must net an income to make the manufacture of gas profitable. Also the sulphur content

of the coal must be low so that the cost of purifying the gas into which most of the sulphur goes shall be as low as possible. Such suitable coals are produced in Pennsylvania, Kentucky and Illinois, but the limited supply, the cost of transportation and the demand on this class of coal by by-product coke ovens which manufacture coke for the steel business, make the price of coal for making city gas almost prohibitive.

Since the apparatus is made of clay or silica, it is easy to understand that it is necessary to keep the apparatus at all times at a high temperature whether there is a large or small demand for gas, otherwise the retorts may crack through the temperature change, this making the system very inflexible. Further, the cost of installation and maintenance is very high.

Coal gas contains not only permanent gases, but also the fog of the light oils which is the cause of the non-uniformity of the product.

Carburetted water gas is made by an entirely different method. The fuel used is one containing a low percentage of gas such as anthracite coal or coke. This fuel is packed into a generator to a considerable depth and ignited; air is then blown through until the fuel bed is extremely hot and incandescent. This requires about four minutes and is known as the "blow". During the blow producer gas is formed which passes into a carburetting chamber where it is partly burned and gives up its heat to the checker work of brick contained in the chamber. From this chamber it passes through a superheater, a cylindrical chamber similar to the carburetted but taller, and from here out to the atmosphere. Producer gas has a heating value of about 120 B. T. U., and is of little value except to heat the carburettor and the superheater. After the fuel bed has reached the proper temperature the opening to the atmosphere from the superheater is closed and any gas made after this is passed from the superheater to the purifying apparatus and then to the gas holder. Steam is then blown up through the hot fuel bed and this steam unites with the carbon of the fuel to form a gas called water gas which has a heating value of 300 B. T. U. and no illuminating value. To give the gas illuminating value and at the same time raise its heating value, oil gas is added. This oil gas is obtained by spraying oil over the highly heated checker work in the

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Top—Lincoln Highway east of Greensburg, Pa., treated with "Tarvia-B."
In Circle—Boston Post-Road—a Connecticut section—treated with "Tarvia-B."
Bottom—Harrisburg Pike near Columbus, O., built with "Tarvia-X," 1916.

Good Roads to the Rescue of the Nation!

Our industrial and military mobilization has overwhelmed the railroads.

Embargoes, a desperate expedient to relieve the glut, are incessant embarrassments to shippers.

Even the Government cannot get its freight through. In some railroad yards the wrecking-derricks are used to get particular cars out of the jam by lifting them bodily from the side-tracks to the main-line. Switch-yards get so full that the main-lines are blocked by waiting trains.

But in those sections where long level routes of good roads connect the cities, motor-trucks are accomplishing marvels of long-distance transportation.

More and more New England is delivering to New York that way, and the Boston Post-Road hums with the endless procession of heavy trucks.

Detroit is sending great caravans all the way to the seaboard, and that is a feat because all the roads are not good

And one impassable mile in the journey is enough to clog the whole line. Keep the roads good! Make them fit for the new traffic! That should be the watchword! Construct and treat your roads with Tarvia. It will make them not only automobile-proof, but motor-truck-proof.

Its use will exclude frost and rain and make an *all-the-year-round* road. It saves labor in replacements and repairs.

The use of Tarvia will insure *good roads at the lowest possible cost.*

PUBLIC ROADS

Whereas, It is essential that all the transportation facilities of the Nation should be brought to the highest state of efficiency in order that food-stuffs may be moved most economically from the farm to the market, that manufactured products be moved at the lowest cost from the factory to the consumer; and,

Whereas, The public highways offer a good, prompt, and economical means to supplement transportation by rail and water; therefore,

Be It Resolved, That the prompt improvement of our public highways is important and should be forwarded in every proper way.

—Resolution adopted at War Convention of the Chamber of Commerce of the United States.



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carburettor which breaks the oil down to form gases, tar and some soot and produces a fog of light oils. As the water gas from the generator passes through the carburettor it is mixed with the oil gas. The mixture passes through the superheater where the gases by being heated together are "fixed" or made permanent which means that on cooling the possibility of anything condensing out of the gas is reduced to a minimum. This second part of the operation is called the "run" and requires about three minutes. By this time the fuel in the generator is cooled down, so a very poor grade of water gas is made and must therefore again be heated by the blow. The whole cycle is then repeated.

From the description of the process it is easily understood that the water gas apparatus can in a short time be practically shut down or put into operating conditions to take care of a sudden unusual demand for gas, thus making the apparatus very flexible. Installation costs are much lower than for a coal gas plant. Taking into consideration the fuel used to bring the fuel bed to proper temperature and to heat the carburettor and superheater, one ton of fuel with the oil supplied will produce about 7800 cubic feet of gas. With 4 gallons of oil per thousand cubic feet of gas used, the carburetted water gas will have a heating value of about 625 B. T. U. and a candle power of about 23 candles. Only about 10 per cent of the oil used is converted to the light oil fog whereas the major portion forms permanent gases which have considerable illuminating value and some oil is converted into tar.

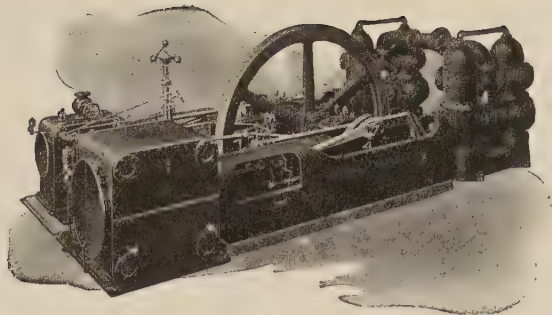
Prices of fuel oil and labor have increased tremendously within the last year or two. In 1914 a high grade of gas oil from Pennsylvania oils could be bought on contract for from 2.8 to 3.5 cents a gallon; coke for gas making could be bought for \$6.50 to \$7.00 per ton. Today the lowest price of oil for Iowa is about 6.7 cents a gallon and it is hard to get a contract for it. One gas company is forced to buy kerosene at 11 and 12 cents a gallon and kerosene is a very inferior gas oil. Coke is obtainable in limited quantities to small buyers for about \$12.00 a ton. With labor costs as well as equipment costs increased it is easy to understand why gas companies are asking for lower standards and a higher price for gas. In 1914 when materials were at the lowest figures, gas companies generally made

about 8 per cent on their investments. With the same quality of gas required now it is easy to see that with greatest economies practiced the gas business is not a remunerative one.

What is the reduction in the cost of making gas by lowering or even eliminating the illuminating standard? Inasmuch as illuminating value is produced by breaking down or cracking of the oil in the carburettor it is evident that by lowering the candle power a certain amount of oil is saved, but oil is still necessary to bring the heating value to say 600 B. T. U. This may be accomplished by reducing the quantity of oil per thousand cubic feet from four to three gallons. By this means the cost of manufacture of gas is reduced by about 7 cents per thousand cubic feet. This does not counteract the increased cost of manufacture alone since 1914 which amounts to practically 23 cents a thousand.

Many of the larger gas plants have been encouraged and even requested by the government to strip the gas of all of the light oils which reduces the candle power to about 14 candles and heating value to 500 B. T. U. One of the constituents of the light oils is toluol which is used to make T. N. T. a powerful explosive. Major Burns of the Ordnance Department has estimated that for this year 22,000,000 gallons of the toluol are necessary to make T. N. T. for our fighting forces and under present conditions the country is producing only 11,000,000 gallons a year. Another constituent is benzol which is made into another explosive, the picric acid, but it is likewise used in the manufacture of dyes and should in the future be an excellent motor fuel. To supply the government with toluene alone the benzol could be returned to the gas which would bring it back to nearly normal illuminating value but it is an added expense. A gallon of highly purified toluol brings \$1.50, the price set by the government and benzol about 35 cents a gallon.

It would seem that this is a nice source of revenue to a gas company. However, the plant for the recovery of toluol and benzol costs from twenty thousand to one hundred thousand dollars which have to be scrapped at the end of the war or at the end of an allotted period of 4 years when there will be little demand for light oils. This means that the plant must be amortized at the end of four years and to do so the returns on the investment must be 25 per cent. It is



MARSHALLTOWN, IOWA

Hans Madsen, Superintendent, referring to a 4,000,000 gallon pump installed by this Company, says:

"We are highly pleased indeed. The pump performs far beyond our expectations and the guarantee, and the engine works perfectly."

Write for Bulletin 1637

Allis-Chalmers Manufacturing Co.

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Rex No. 2, the "Rubberoad" Surface

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This material will not penetrate the roadbed like other oils, but lies on the surface until the liquid element evaporates, thus leaving a soft, pliable asphaltic surface. Costs but little more than other Road Oils.

We will contract to sell and apply material, furnishing our modern equipment, making it unnecessary for you to purchase costly equipment for the few days you would possibly use it. If you have modern equipment, let us quote you on your material.

Eliminate Mud and Dust. 37 different contracts with 20 Iowa Municipalities and Counties last year show the large percentage who order additional work within a few months. We will be glad to refer you to this work. Try a few of your streets or roads and you will demand it on all of them.

Have us protect you now on your requirements for the coming season.

Iowa Road Building Company

Manhattan Building, Des Moines, Iowa

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estimated that 8 cents a gallon is the actual profit on toluol and as one thousand cubic feet of gas yields .06 gallons of toluol the profit per thousand cubic feet of gas is about one-half of a cent. Where the benzol is not returned to the gas about .15 gallons of this material is obtained from one thousand cubic feet of gas which at a profit of 5 cents a gallon would bring in .75 cents. With a saving of 7 cents for oil per thousand cubic feet and a net income of \$1.25 for toluol and benzol per thousand cubic feet of gas the cost of producing gas would be reduced 8.25 cents per thousand and as against a total increase since 1914 or from 15 to 25 cents due to increased cost of raw materials, labor, purifying materials, etc.

The cost of manufacturing gas is from 50 to 60 per cent of the total operating costs to bring the gas from the plant to the consumer including all expenses of manufacture, distribution, taxes, office expense, etc. If all expenses outside of manufacturing costs increase in the same proportion as manufacturing costs do the price per thousand cubic feet of gas since 1914 will increase by another 15 to 20 cents. The total increase in the manufacture and distribution of gas this year would be from 30 to 45 cents per thousand over 1914.

The data given is based on a large carburized water gas plant which can produce gas at a lower cost under any economic conditions than can a small plant. Also figures of a coal gas plant would be different because a larger amount of light oils are produced per thousand cubic feet of gas.

It is the intention of this paper to bring before the public some of the facts concerning the cost of manufacture of gas and not to influence anyone to change gas standards or the price of gas. The relative merits of each case must be determined separately for each city has its own problems in connection with the making of gas. It is hoped that the facts herein stated will aid in the solution of these problems coming before city officials.

HELP WITH THE GARDENS

The garden campaign will be pushed in every city and town this year and municipal officials should help in every possible way. If the garden work has not been started in your town get busy and get it started yourself.

Extracts From Rate Research

(Continued from page 168)

"The condition and demand that the utility faces is well stated in *Landon v. Lawrence* (Kan.) P. U. R. 1915 E, 798: 'This preparedness, this readiness to serve, is worth something to the consumer whether he makes a request for the service or not. He may not use any gas for a month, but the complainants and the distribution system are expected to stand ready to serve him. He should by every principle of equity be bound to render a fair return.

"The testimony in the hearing on the two petitions, and a careful analysis of the rate schedules, present an interesting exhibition of the absence of any recognized basis in Indiana for the construction of electric utility rate structures. Thirteen towns and cities lying closely together, and recently brought into this one central-power station service unit, have wholly different rate structures. Some have flat rates and no minimum charges, others have minimums of 50 cents, 75 cents, \$1 and \$1.50. Some present what might well be termed a riot of rates and schedules that, by their very nature, are unfair and highly discriminatory. Odon presents a study of such rates. There are in effect in said town flat rates under which schools show records of bills at 10 cents a month, and lodges 20 cents or 30 cents; while some residents on flat rates pay 65 cents minimum, other residents, who own their meters, pay \$1 minimum. Bloomfield pays a 12-cent rate, with no discount for residence lighting; Petersburg 12 cents, with a 10 per cent discount; Bicknell, with a 50-cent minimum, has a 9½ cent rate, with a discount that reduces it to 9 cents; and Dugger a 12½-cent rate with 10 per cent discount, and with a minimum of \$1 for residences and \$1.50 for stores. The block rate situation is equally chaotic. Bloomfield's first step comes after the first 40 kw. hr. at 12 cents; Dugger's, after the first 25 kw. hr. at 12½ cents; Worthington's after the first 35 kw. hr. at 11 cents; Bicknell's, after the first 50 kw. hr. at 9½ cents; Petersburg's, after the first 10 kw. hr. at 12 cents. It would be difficult to find a wider variance in rates and theories. If all of these municipalities and communities are to be tied into one service, supplied by one company from one central power station, it will be emin-

Classified Advertisements

Officers of members of the League of Iowa Municipalities may run one advertisement each month free of cost.

BIDS WANTED—The city of Perry, Iowa, will receive bids until 8 o'clock p. m. February 15, 1918, for 1 60 K V A, 2 phase 60 cycle 220 volt A. C. generator, directly connected to engine. To be installed at the Perry Water Works. Specifications and profile of plant may be obtained at the office of the City Clerk, Perry, Iowa. Adrian Cross, City Clerk. 118

FOR SALE—One Ingersoll Rand duplex air compressor, in first class shape. Address Adrian Cross, City Clerk, Perry, Iowa. 118

FOR SALE—One Seagraves horse drawn hose wagon and fire harness, same as new, for sale at less than half price. Address, J. O. Gregg, city manager, Iowa Falls, Iowa.

FOR SALE—All brass Artesian well cylinder 5 3/4 x 36 inches with bronze ball valves and 300 feet of 3 1/2 inch Octogan selected ash wood rods fitted with dropped forge sucker rod couplings, suitable for pumping from deep well, using steam head or lever stroke. For particulars, address G. F. Taylor, city clerk, Stuart, Iowa.

FOR SALE—All brass Artesian well cylinder 3 1/4 in. x 48 in. with bronze ball valves and 350 ft. of 3 1/2 in. number 1 wood rods and couplings, suitable for pumping from a deep well using steam head or lever stroke. For particulars, address, G. F. Taylor, City Clerk, Stuart, Iowa. 107

FOR SALE—Having recently made arrangements with a power company to furnish electricity the town of Coggon has the following for sale. 1-28HP Bates & Edmonds double cylinder gasoline engine. 1-125 Volt 120 amp. continuous load D. C. generator, 1200 R M P. 1-55 volt 25 amp. continuous load D C generator, 1400 R M P. 1 fully equipped switch board. Everything in good condition. For information write F. W. Lindahl Town Clerk. 106

FOR SALE—The city of Shenandoah, Ia., has for sale. 1 Seagraves Hose Wagon in extra good condition fully equipped. 1 Hale Hose Wagon (new) built especially for Tournament purposes. 2 Sets of Hale harness and hangers nearly new. 1 Hand drawn ladder truck with ladders. 2 Hand drawn hose carts in excellent condition. Also will sell one span of fire horses, (thoroughbreds) young and well broken for fire service. Address inquiries to C. M. Conway, city clerk. 106

FOR SALE—Having recently made arrangements with a neighboring town to furnish electric current for lighting and power. The town of Shelby offers for sale a Gas Lighting Plant, complete in good running order will sell at a bargain, as the town has no use for it, address all communications to town clerk of Shelby, Iowa.

FOR SALE—The incorporated town of Milford has for sale 1 Davis carbide feed acetylene gas plant in perfect condition. Model B generator 75 pound capacity. 23 burners with fixturers. 150 feet 1/2 inch pipe. Will sell at a sacrifice. For information write J. E. Shelledy Clerk, Milford, Iowa.

FOR SALE—Having recently installed a water works system the town of Lowden offers for sale a chemical engine in good condition. For particulars write Richard Parr, Town Clerk, Lowden, Iowa. 116

FOR SALE—85 pieces, 12 feet lengths, 16 inch cast iron pipe; 22 pieces about 21 feet length, 4 inch, extra heavy galvanized with couplings; 8 pieces about 20 feet lengths, 4 inch extra heavy galvanized without couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized with couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized without couplings; 150 feet, 6 inch black pipe; one 20 inch valve, hub end; one 16 inch valve, hub end; one 20 inch sleeve; one 20 inch x 20 inch x 16 inch T; eight 4 inch x 4 inch x 3 inch T, hub; twenty 4 inch valves threaded; ten 3 inch valves threaded; ten 4 inch crosses; ten 4 inch Ts; six 3 inch dresser couplings; thirty 4 inch dresser couplings; ten 4 inch saddles and double straps; ten 4 inch to 3 inch galvanized extra heavy reducers; and eight Cook strainers No. 20. The above is all new and will be sold at a bargain. John I. Bell, commissioner, Marshalltown, Iowa. 917

FOR SALE—One Olson Standard Paving Brick Rattler, nearly new, Price \$75.00. This rattler has been used for about a mile of paving and is in good shape. If interested write P. H. Jones, Clerk, Manning, Iowa.

FOR SALE—The city of Colfax, Iowa, offers the following: Two National steam pumps capacity 500 gallon per minute equipped with Mason Regulators. Two boilers tested to carry 85 pound pressure. One Cameron pump 5 H. P. One National pump 5 H. P. This equipment is in good condition. Will sell all or part. If interested write for further particulars or call and inspect.—H. F. Cassidy, City Clerk.

FOR SALE—18 horse power Watrous fire engine, good as new, complete with 30 foot 4 inch suction hose, same being replaced by high pressure water system. Write or wire at once, for full particulars. Russell E. Whipple, chief, fire department. Lehigh, Iowa.

FOR SALE—Two 2-horse double 50-gallon tanks and one either 2-horse or hand drawn 100 gallon chemical fire engine. Champion make, and in good condition. Inquire Chief Kellogg, fire station No. 1 Sioux City.

FOR SALE—Bates & Edmonds 35 H. P. upright engine, gasoline or kerosene, 2 cylinder, all complete, in good shape. Have installed transmission line current and have no use for engine. Address Percy Lyon, Clerk, Dike, Iowa. 617

FOR SALE—Having completed arrangements with a neighboring city to furnish our electric current we offer the following at a bargain. One 25 horse power special electric Fairbanks Morse Engine. One 20 K. W. Peerless Generator. 60 Amp. hour battery and switch board instruments. Everything in good condition. Address Town Clerk, Hudson, Iowa

PAINTING—If you have water tower or anything in similar line you want painted, write W. O. Potter, Fredricksburg, Iowa

FOR SALE—Cities wanting or needing a milk laboratory apparatus can get a bargain by addressing, John Berwald, Mayor, Davenport, Iowa. 107

WANTED—Second hand 10,000 to 16,000 gallon storage tank for gasoline. Lock box 235 Sheldon, Ia.

FOR SALE—A number of good gas meters. Will be sold at a bargain. W. D. Hanna, Clerk, Winfield, Iowa. 57

ently unfair, unreasonable and discriminatory, as between municipalities, as well as patrons, to permit such wide variations to exist, and they could not long exist without creating much contention. Said municipalities and patrons of the company stand receptive to improved service and rate reductions; but if they are to enjoy said benefits it is also incumbent on the comparatively few patrons adversely affected to bear the slight changes that are adjudged to be reasonable and just in creating a nondiscriminatory and fair condition in the entire service."

The commission authorized the following rates for commercial lighting and power service:

COMMERCIAL LIGHTING

Rate.

10 cents per kilowatt for the first 50 kilowatt hours used per month.

7 cents per kilowatt hour for the next 50 hours' use of the connected load.

5 cents per kilowatt hour for the next 50 hours' use of the connected load.

3 cents per kilowatt hour for all excess.

Heating utensils, flatirons, washing machines, and other household utensils are not figured as a part of the connected load.

Minimum Charge.

\$1.00 net per month in the towns Elnora and Odon.

.85 net per month in the towns of Worthington, Bloomfield, Dugger and Petersburg.

.75 net per month in the city of Bicknell.

Prompt Payment Discount.

A Discount of 10% on all bills if paid on or before the 10th of each month succeeding that for which the bill is rendered.

POWER SERVICE

Rate—Demand Charge.

	On Peak Per Year	Off Peak Per Year
Motor installations up to 10 horsepower per kilowatt of maximum demand.....	\$24	\$21
Motor installations from 10 horsepower to 50 horsepower per kilowatt of maximum demand.....	21	18
Motor installation of 50 horsepower and over per kilowatt of maximum demand.....	18	15

On peak is between the hours of 4:30 to 8:30 p. m. These demand charges are based

on the delivery of 3-phase, 60-cycle current at either 220 volts or 2,200 volts.

To the above demand charge is added an *Energy Charge of*

2.25 cents per kilowatt hour for the first 1,000 kilowatt hours used per month.

2 cents per kilowatt hour for the next 2,000 kilowatt hours used per month.

1.72 cents per kilowatt hour for the next 3,000 kilowatt hours used per month.

1.50 cents per kilowatt hour for the next 4,000 kilowatt hours used per month.

1.25 cents per kilowatt hour for all over 10,000 kilowatt hours used per month.

Determination of Maximum Demand.

The maximum demand on installations exceeding 10 horsepower will be considered as the average of the three highest 15-minute peaks occurring during the year next preceding the date of rendering bill. At the option of power company, this maximum demand may be measured by installing a graphic recording meter; or by making other tests at times of peak load. On installations up to 10 horsepower the maximum demand in kilowatts equals 60% of the rated horsepower connected.

In case a customer desires current to be delivered at the transmission voltage of 33,000 volts, a reduction of \$1.50 per kilowatt of maximum demand will be made.

Prompt Payment Discount.

A cash discount of 10 per cent will be allowed on all monthly bills up to a gross bill of \$200 per month, and an additional 1 per cent will be allowed on every \$100 gross increase in bill, up to \$2,200 per month. That is to say, if the gross bill should be \$500 for the month, a discount of 15 per cent would be allowed; if it should exceed \$2,200, the discount would amount to thirty per cent.

PIGS IN TOWN

The farmers claim that they are feeding all the pigs that they are able to and it is up to the people in the cities and towns to feed pigs this year and increase the supply of pork. As a usual thing pigs should not be allowed in town but during the war we should do everything possible to increase the food supply.

Raise-a-Pig Clubs should be started everywhere especially in the smaller towns.

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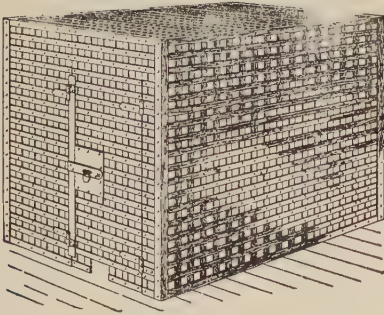
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A single steel cell placed in your town hall, fire station or other place will be all you need.

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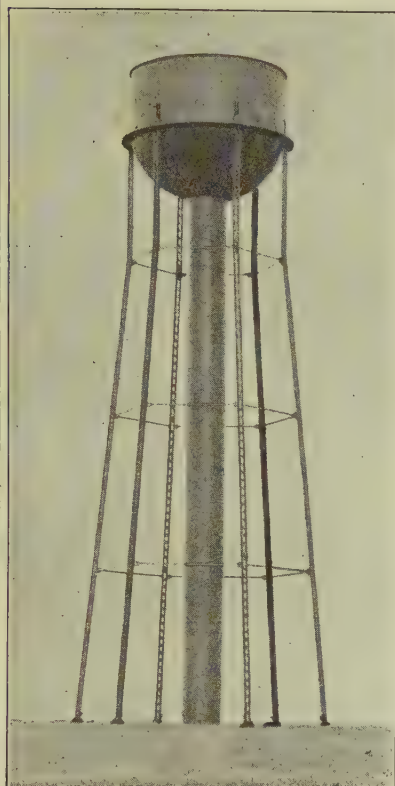
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WE HAVE hose in every country on earth—millions of feet in the United States and Canada, both in fire departments and in factories, warehouses, packing plants, hospitals, state, county and city buildings, clubs, schools, hotels, railroad shops, freight houses, ships and depots—in fact everywhere where hose is needed. If you want a hose that will give you the best of service, no matter for what purpose, we have it. ¶We make cotton, rubber and linen fire hose, all weights and qualities—suitable for the lightest and heaviest service. We also make hose of every size and diameter, from the 1-16 inch hose used for inflating tires to the 36 inch suction used for dredging. ¶Write us for samples and prices. No matter what you want it for, we have it.

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APRIL, 1918

Published Monthly

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American Municipalities

April, 1918

Vol. 35, No. 1

Entered as second class matter December 1, 1911 at the Postoffice at
Marshalltown, Iowa, under the Act of March 3, 1879.

Published by

Municipal Publishing Company

Marshalltown, Iowa

Frank G. Pierce, Editor

Subscription Price, - - - \$1.00 per year

Advertising rates made known on application

TO MUNICIPAL OFFICIALS

Municipal officials receiving American Municipalities need have no fear of incurring financial obligations. If you are not a subscriber, either the municipality you represent is a member of one of the Leagues of Municipalities and you are entitled to a copy free, or the copy you receive is a sample copy.

Resolution Adopted by League of Iowa Municipalities

That without evasion or reservation, we do promise that our every word, act and deed shall be in support of our President, our Governor, our Sons and Brothers,—the Sons of the Republic—and their Allies across the sea who are fighting the battle of liberty and freedom, the battle of the weak against the strong, of right against wrong.

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COMMENT

In the next issue of American Municipalities we desire to publish the election results in the different cities and towns and in order to do this it will be necessary for the different city clerks to send in a complete list of the new officers.

It will add greatly to the interest of these returns if a short statement of the issues in the campaign would also be presented.

Send in these reports as soon as possible so that your town will be represented in the list of reports published next month.

In this issue we publish a special report of the Committee on Road Oiling that should be read by every municipal official interested in this subject.

It will be noticed from this article that the preparation of the road is as important as the quality of the oil and if you expect to oil any roads this year it is all the more reason you should read this article.

The specifications for road oil are those approved by the State Highway Commission but are subject to revision and if you have any ideas or suggestions as to changing these specifications you should write the secretary fully in regard to the same.

There is also published in this issue a statement of the law in regard to road oiling and this statement explains fully just how to proceed and tax the cost up to the abutting property.

There is no doubt but what the abutting property should be assessed for oiling of the roads but if the property is so assessed the property owner has the right to expect a good job in every way and municipal officials should see that a good job of grading and oiling is done in every case.

At the beginning of a fiscal year municipal officials should carefully consider all departments of their municipal government, and see if the fixed expenses cannot be reduced during the coming year.

At least during the war every needless employee and official should be dispensed with not only for the purpose of releasing as many possible men but for the purpose of conserving the resources of the municipalities during the war.

It would seem that in view of the recent

German offense that every one in this country would now be convinced that we are in for a long hard siege before the enemy is defeated and we should everyone arrange his business in order to be in position to be of greatest possible service to the country during this period.

The efficiency of big business has not up to this time delivered the goods and this makes it all the more necessary that the great mass of the people should hold themselves in readiness to do everything possible to win the war.

The President has placed many representatives of big business in places of trust but almost without exception they have either shown themselves unequal to the job or else have tried to use their position for their personal benefit.

The President must come to the conviction sooner or later that the war will be won by the common people and by the representatives of the common people rather than by the big interests and the representatives of the big interests.

It is amusing to read the publicity matter that is sent out from Washington asking that the common people remain loyal to the country when the fact is that the people at large are so much more loyal than the chair warmers at Washington, that there is no comparison.

The appeals should be made to the thousands of officials in Washington to show their patriotism by working for the good of the country and not for their own good and if the people at Washington will be as loyal as the great mass of the people throughout the country better results will be obtained.

Instead of the officials at Washington appealing for loyalty in the people the people should appeal for loyalty in the officials and this would get much better results as that is where the loyalty is lacking.

Even though we feel that the officials are not doing what they should do is no reason why the people at large should not do everything possible to help the war.

The fact is that if there is inefficiency at Washington it is all the more reason why the people must do more as someone must make up for this bungling of the different departments at the capital.

The more the facts are brought out of inefficiency at Washington the more must every one be willing and anxious to do not only his duty but do everything he can to forward the interests of our country.

The municipal officials more than anyone else are under special obligations to do everything they can to forward the war because they are so directly the representatives of a majority of the people in their respective municipalities.

The motto of every loyal American citizen should be "not how little but how much can I do for my country".

WHAT CONSTITUTES MANUFACTURE OF INTOXICATING LIQUOR

Extracting the juice of grapes, and allowing it to ferment, and thereby letting it become intoxicating liquor, was held by the Supreme Court of Washington in the case of *State v. Fabbri*, 167 Pacific Reporter, 133, to be the manufacturing of intoxicating liquor, within Laws 1915, p. 3, § 4, making it unlawful for any person to manufacture, etc., any intoxicating liquor. Judge Parker, for the court, in passing on this point, says: "Of course, if one should put up some kind of fruit juice, and it, without his knowledge, should ferment and become intoxicating liquor, he would probably be considered not guilty of violating our statute by that act alone. But should he put up some kind of fruit juice with the intent of having it so ferment and become intoxicating liquor, or should knowingly keep it after it had so become intoxicating liquor, we think it could hardly be contended, with any show of reason, that he had not violated the plain provisions of the statute."

It was also held in this case that it was a violation of the statute merely to manufacture intoxicating liquor, regardless of the fact that such manufacture was without intent to sell, and though only with intent on the part of the manufacturer to consume it himself.

It was contended that the statute in question was violative of the Fourteenth Amendment of the Constitution of the United States, and of Const. of Wash. art. 1, §§ 3, 7. The court thought otherwise, and the judgment of conviction of the lower court was affirmed.

The Law of Street Oiling

Councils May Oil Streets and Tax Cost to Abutting Property

The law in regard to oiling of streets and taxing the costs up to the abutting property is found in chapter 172 laws of the 37th General Assembly. A careful reading of this chapter will explain the different steps necessary to order the oiling of streets and then the taxing of the costs to the property benefited.

Section 1. Provides that any city or town may, by resolution, order any street oiled and tax the costs to abutting property, except that the intersections must be paid for by the city or town.

Where a street railway is in the street the railway company must pay for that part of the street between their tracks and one foot outside, but this provision would not apply to towns that do not have street railways.

A majority vote of the council may order the improvement with or without a petition of the property owners.

The council can do the work by day labor or let a contract as they think best.

The resolution ordering the oiling of streets should be worded about as follows:

RESOLUTION FOR OILING STREETS

Be it resolved by the Council of the Town of, Iowa,

That First street from the east line of Washington street to the west line of Jefferson street, and Second street from the east line of Adams street east to the town limits, be and the same is hereby ordered oiled and the entire cost thereof, except the cost of oiling the intersections, shall be assessed to the property abutting upon such streets in proportion to the benefits conferred thereby.

The oiling shall be done by the municipality and the benefits assessed in accordance with the law providing for oiling of streets and assessing of the cost to the benefited property.

Section 2. Provides that within thirty days after the completion of the oiling an itemized and verified statement of the costs shall be filed with the clerk.

Section 3. Provides for the notices to the

property owners. The clerk shall first prepare the proposed assessments of the costs of the oiling showing the amount to be assessed against each piece of property and then give at least ten days notice that the council will meet and consider objections to the assessment. The notice shall contain a statement of the extent of the work performed, the total cost thereof, that a proposed assessment of the cost of such oiling against abutting property is on file in the office of the clerk and a statement of the time when the council will meet and hear objections to such assessment. It is not necessary to publish the itemized statement of assessments but only the notice below that such assessment roll is on file in the office of the Clerk. The property owner must come to the Clerk's office to find out the amount of his assessment.

The proposed assessment should be worded about as follows:

PROPOSED ASSESSMENT FOR OILING STREETS

In accordance with the action of the council, and based on the itemized statement of expense filed by the Street Commissioner, it is proposed to assess the following amounts against the abutting property on the following streets for the cost of oiling the same.

Broad Street

Lot 1, Block 1 \$1.50

Lot 2, Block 1 \$1.50

(List each lot or parcel of land)

Prepared by me and filed in my office this day of, 1917.

Clerk of the Town of, Iowa.

NOTICE OF ASSESSMENT OF COST FOR OILING

STREETS

Notice is hereby given, to all persons liable to such assessment, that there is now on file in the office of the clerk a proposed assessment of the cost of oiling the following streets:

Broad Street from the north line of 1st street to the corporation line, South street from the north line of 1st street to the south line of Sixth street.

The total cost of such oiling amounts to \$623.87.

The Council will meet at 8 p. m., on Monday, the.....of.....1917 to hear objection if any, to such proposed assessment.

Clerk of the Town of....., Iowa.

This notice should be published once in paper if there is one published in town otherwise by posting in accordance with provisions of the law.

Section 4. Provides for the making of the assessments by the council. At the time fixed by the notice of the clerk the council shall meet, hear objections and make any corrections, and then, by resolution, adopt the assessment as proposed or as corrected. If the assessments made in this resolution are not paid within 30 days the amount shall be certified to the county auditor by the clerk.

RESOLUTION ADOPTING ASSESSMENT FOR OILING STREETS

Be it resolved by the council of the town of....., Iowa,

That the proposed assessment of the cost of oiling Broad street from the north line of First street to the corporation line and South street from the north line of First street to the south line of Sixth street, prepared by the clerk and on file in his office, and notice of which, in compliance with law, was given all persons liable for such assessment, be and the same is hereby levied against the property in accordance with such proposed assessment, and all such assessments not paid within 30 days after the passage of this resolution shall be certified by the clerk to the county auditor as a special tax against the property.

NOTE—If corrections are made in assessment, insert "as corrected" after the words "such proposed assessment".

CERTIFICATE TO COUNTY AUDITOR

To auditor of.....County, Iowa:

I hereby certify the following sums against the following lots and parcels of ground, as a special tax, to pay the cost of oiling streets, all in accordance with actions of the council and the state law.

(Run descriptions and amount)

Given under my hand and seal this.....day of....., 1917.

Clerk of the Town of....., Iowa.

Section 5. Provides that objections to the proceedings must be in writing.

Section 6. Provides that any person may appeal from the assessment by serving written notice within 10 days on the mayor or clerk and filing a bond for costs.

SPECIAL NOTE—If there is money in the general fund and the council desires, the cost of road oiling may be paid out of the general fund and not taxed up to the property.

It would seem that the special tax method would however be fairer and it is recommended that this plan be followed in every case.

VALUE OF A BUILDING ZONE PLAN

Under present war-time conditions of rigid municipal economy, the preparation and adoption of a building zone plan offers perhaps the best opportunity for achievement along city planning lines. Many public improvements require enormous expenditures that make them prohibitive at the present time. If these improvements could be had merely for the cost of preparing the plans, no city would consider itself too poor to have them. Zoning is an improvement equal to or surpassing in social value most of the big and costly improvements that cities mortgage their future to achieve, and yet it may be had almost without cost, merely the cost of preparing the plan. This cost is infinitesimal when compared with the immense saving to property owners through the prevention of the destruction of property values caused by the invasion of sections by inappropriate uses. Every city has suffered enormous and utterly senseless losses through the spotting of good residential sections with stores, garages and factories. The zone plan stabilizes values and directs the growth of the city in accord with a well-considered plan.

The zone plan of New York City has now been in actual operation a year and a half. It is an unqualified success. There is substantially no opposition to it. It commends itself generally as a common sense measure of municipal control. Various other cities, including Philadelphia, St. Louis, Newark and Fresno, have appointed commissions to prepare zone plans. All cities of New York and cities of the first class in New Jersey and Wisconsin were authorized by the legislatures of 1917 to adopt zone plans. Much progress should be made during the year 1918 in the careful formulation and adoption of building zone plans.—American City.

The Use of Road Oil

Special Report of Traffic Committee of the League of Iowa Municipalities

On account of the general interest in road oiling, the following information on the subject is submitted. Capt. T. R. Agg prepared the discussion of preparation of the street and application of the oil for the Engineering Experiment Station, Iowa State College. The specifications are recommended by the Iowa Highway Commission. These specifications are tentative and subject to change if continued experience in oiling roads renders such change desirable.

Preparation of Road: The principal preservative function preformed by road oil is that of partially water proofing the road surface so that storm water will soften the surface but slightly in flowing to the side ditches. A road surface with insufficient cross slope will not be as greatly benefited by oiling as will one that is properly crowned.

In view of the marked superiority of the roads that were well graded before being oiled over those that were oiled before they were graded, it would seem desirable to confine oil surfacing to county roads that have been brought to a permanent grade and to city streets that have been well rounded up so as to insure good drainage.

It is evident that the road that is to be oiled should have ample side ditches with good outlets. If water stands in the ditches it will soften the earth under the oil surface and vehicles will cut through the surface layer of oil-impregnated earth. When this happens the road will deteriorate rapidly, become rutted and uneven. A good rule to follow is to oil only those roads that were graded at least a year prior to the applications of the oil and have had sufficient traffic to thoroughly compact the surface. There should have been sufficient observation on the effect of grading to show that the surface and tile drainage is properly cared for.

The surface of the road at the time the oil is applied should be smooth and dense but not dusty. A road that has just been dragged is not in suitable condition for oiling because of the loose material that has been thrown into the traveled

track but after it has been traveled for a few days the road may be dragged again, moving the loose material out onto the shoulder, thus giving a smooth, hard surface for the oil.

Dust on a road surface precludes the possibility of the oil penetrating into the hard road bed under the dust and the oiled dust will not compact to form a good surface. Unsatisfactory results are certain if oil is spread on top of the dust on a road. Some light soils grind into dust so readily that it is difficult to get them into the proper condition for oiling. On such roads a very fluid oil is more likely to give good results than the heavy, but every possible effort should be made to eliminate all of the dust. It is generally said that the road should be dry at the time it is oiled but that does not necessarily mean it should be BONE dry. If the surface is moist that will not interfere with the penetration of the oil, in fact there are some indications that it is better to oil on a road that is slightly moist than on one that is very dry.

To sum up then, a road that is in condition for oiling will have perfect drainage, will be free from dust and present a smooth, hard dense surface. Such a condition will be found on the average rural highway in the months of May and June.

Heating Oils in Tank Cars: The tank cars in which road oils are shipped are generally equipped with steam coils for heating the contents of the car. The steam leads, which are usually of about two-inch pipe, will be found on the under side of the tank. A steam pipe is laid to the car and connection made to one of the steam leads. The other steam lead is fitted with a valve which is opened just enough to let out the water that condenses in the coil.

A traction engine may be used as a source of steam or the car may be set near a power plant.

The oils will usually require heating to a temperature of about 150 degrees F., but may be heated to about 200 degrees F. without danger. Beyond that point foaming is likely to take place

if the coils in the car leak. Nothing is gained by heating beyond 200 degrees F. and the crew that is handling the oil should be provided with a thermometer so that a temperature of at least 50 degrees F. below the flash point of the oil will not be exceeded.

Transferring Oil: Some means of pumping the oil from the tank car to the tank wagon must be provided and any one of a number of types of pump may be used. The ordinary hand operated tank pump furnished with traction engine tanks has such small capacity that the work is tedious but is sometimes employed. Its use is advisable only when a single tank of oil is to be handled each season, and even then is of doubtful econ-

omy. tank to the pump by gravity, as the pump will not prime itself.

Sometimes it is possible to set the tank on a siding which is on an embankment high enough that the oil will flow to the tank wagon. This is, of course, the most convenient way of unloading when it is possible to employ it.

Time is an important factor in the cost of applying oil. Delays increase the demurrage charges on tank cars and may cause the work to be held up by bad weather. When all the conditions are favorable a tank car can be unloaded in two days. This is not possible unless the mechanical equipment for handling the oil is adequate and is kept in good condition. A little



A street in Ames, Iowa, looking from the part not oiled onto the part that was oiled in July for the first time. Photographed in October after a week of wet weather.

omy. If more than one tank is to be handled it will pay to secure a power driven pump. Of these, the rotary type which is used for furnishing pressure on the distributing wagon is best. These can be purchased at small cost and can be belted or geared to a small gas engine.

A pump of this type should always be set up on the ground so that oil will flow from the

money spent for a good pumping outfit is an excellent investment.

Oil Distributors: Several satisfactory types of oil distributors are on the market, differing little from each other in essential features. It is desirable that the distributor be equipped with a heating device so that the oil can be kept hot on long hauls or can be heated in the tank wagon if

not in the tank car. The spray should preferably be of the force feed type rather than the gravity type. A tank capacity of about 600 gallons is as large as it is advisable to use where teams are employed for hauling. If the motor driven type is used, the 1000 gallon capacity is as large as can be handled satisfactorily on earth roads.

Applying the Oil: When the road surface is in suitable condition for oiling, there will be danger of putting so much oil on the surface that it will flow to the sides of the road and be wasted or at least increase the quantity at the sides of the road beyond what is needed. To make sure this does not happen, the quantity of oil applied at one time should not exceed about $\frac{1}{4}$ gallon

and vehicles must of necessity use the freshly oiled surface. The oil clings to the wheels of vehicles and is spattered about, soiling clothing, injuring the paint on vehicles and making a disagreeable mess generally. Besides, it is carried on the wheels of vehicles from the street where it is needed. At crossings the oil is carried away on the shoes of pedestrians and finds its way into stores and homes. To eliminate these undesirable features of the use of road oils, the surface should be sanded after the oil has been spread. For this purpose it is best to use good sharp concrete sand in sufficient quantity to absorb the excess oil. One half of the street should be oiled and covered with sand before the other



A street must be well drained before it is oiled. The street shown here would be little benefited by oiling.

per square yard of surface. If a heavier treatment is desired, a second application may follow after the first has been absorbed by the road surface. In warm weather this will not be more than 10 hours and often will not be more than 3 or 4 hours.

Covering with Sand: When the oil is applied on city streets, the whole width is covered

half is oiled. The sand ought not to be applied for 3 or 4 hours after the oil has been spread, but if traffic cannot be kept off for that length of time, the sand may be put on immediately after the oil is spread. After the street has been under traffic for a short time it will usually become apparent that a little more sand is needed in some places to keep the oil from picking up.

These spots should be covered lightly from time to time until the surface is of uniform appearance and all sticky places have been eliminated. A cubic yard of sand will cover about 350 square yards of surface.

The necessity for the sand covering on rural highways is not so great because the entire width of road is not oiled and vehicles may keep off the freshly oiled part of the road until the oil has been entirely absorbed. But as a rule traffic will not avoid the oiled part of the road and vehicles will carry away a part of the oil from the part of the road that needs it most—the middle. The cost of sanding is small as a rule and the benefits derived is substantial.

Maintenance of Oiled Earth Roads: Oiled earth roads need maintenance from the first. The oiled layer will flake off or become rutted and thus the durability of the road will be impaired. These defects can be corrected by dragging and the surface can be kept smooth and properly rounded. It is particularly important that the surface be dragged after rains that continue for sufficient length of time to soften the surface.

Re-oiling will be necessary each year under average conditions.

Cost of Oiling: Under conditions of 1916, with road oil available in tank car lots at a cost of 5½ cents per gallon, the cost of oiling will be about as follows:

Cost of one application consisting of ½ gallon of oil per square yard of surface applied on city streets where the haul does not exceed an average of one-half mile and when the surface is sanded, 3½ cents per square yard of surface.

Cost of one application of ½ gallon per square yard of surface for a width of 8 feet and ¼ gallon per square yard for an additional width of 8 feet on a rural highway where the average haul does not exceed two miles, will vary from \$200.00 to \$225.00 per mile.

These costs will vary with the efficiency of the organization, the weather conditions, the amount of dust to be removed, and with the kind of equipment available. No items for miscellaneous tools or for interest or depreciation on equipment are included.

Results to be Expected: Surface oiling must be considered primarily as a maintenance method, but repeated oiling undoubtedly results

in a cumulative benefit. Oiled roads resist the effect of summer rains quite well, but long continued wet weather (a week or more with little sunshine between rains) will soften the surface enough so that vehicles will cut into the oiled surface. The oil eliminates most of the dust nuisance but if an oiled road is neglected until it does become dusty, the dust will be oily and adhere to everything it touches.

The road or street that is to be oiled must have a good cross slope and ample ditches or gutters, and must be free from depressions that will hold water. Disappointment is sure to result from oil treatment on roads that are not properly graded.

The surface of a road or street must be dry and hard and free from dust when it is oiled. If the surface requires reshaping with the grader before oiling, the earth work must be done sufficiently in advance to insure that the surface will be thoroughly compacted before it is oiled.

From results obtained on oiled roads under observation of the Iowa State Highway Commission the following specifications should give good results on the various types of soil prevailing in Iowa:

SPECIFICATIONS FOR ROAD OILS

Specification A—

Road oil for cold application to earth roads (including heavy loam, clay or sandy loam). The road oil shall be homogeneous, free from water, and shall not foam when heated to 125 degrees C., (257 degrees F.). It shall meet the following requirements:

1. The flash point shall not be less than 125 degrees C., (257 degrees F.) as determined by the open cup method.
2. The specific viscosity (Engler) 50 c. c. at 40 degrees C. shall not be greater than 40 degrees.
3. The per cent of asphaltenes, (total bitumen insoluble in 86 degrees B. Naptha), shall not be less than 7.0.
4. The per cent of fixed carbon shall not be less than 4.0.

Specification B—

Road oil for hot application to earth roads (including heavy loam, clay, sandy loam, sand clay or semi-gravel). The oil shall be homogeneous, free from water, and shall not foam when

(Continued on page 17)

Council Controls Utility Rates

Maximum Franchise Rates May Be Increased by Council

The Iowa Supreme Court in the case of Iowa Railway and Light Company vs. Jones Auto Company of Perry, interpreted section 725 Code Supplement. This opinion will be of interest to all cities and towns, especially just at this time when so many companies are asking for an increase in rates. The opinion of the Supreme Court is as follows:

About May 9, 1900, the city of Perry granted to plaintiff's assignor a franchise "to construct, maintain, operate and repair a heating plant system for supplying heat to the city of Perry and citizens thereof and for that purpose to use the streets, alleys and public ground thereof by excavating and laying therein mains, pipes and other equipment necessary for such purposes". Section 5 of the Ordinance declares:

"The cost of the heat to consumers shall not exceed fifteen (15) cents per foot of radiation per annum and at no time during the operation of the plant under this ordinance shall the cost of heat to the consumers be more than the average costs of heat by the same style in five cities in the state of Iowa having population approximately that of the city of Perry, Iowa, and furnishing an equal number of patrons."

On August 3, 1904, the city council enacted an ordinance known as No. 98, section one of which reads:

That Section Five of Ordinance 89 of the city of Perry, Iowa, above referred to, be and the same is hereby amended and made to read as follows, to-wit: "The cost of heat to consumer shall not exceed 20 cents per foot radiation per annum and at no time during the operation of the plant under this ordinance shall the cost of heat to the consumers be more than the average cost of heat by the same system in five cities of the state of Iowa having a population approximately that of the city of Perry and furnishing an equal number of patrons."

Exception is taken to the order overruling the motion to strike section one of the Ordinance 98 from the reply, it having been pleaded in

justification of the 5 cents per foot radiation in excess of that authorized in ordinance 89. The validity of said section is assailed for that, as is contended, (1) it was never approved by a vote of the electors of the city, (2) that as ordinance 89 is in the nature of a contract, ordinance 98 increasing the rate was without consideration and (3) impaired the obligation of said contract and (4) the enactment of ordinance 98 was in excess of the city council's power, it being authorized only to renew the franchise granted, not to alter it. Ordinance 89 was passed May 9, 1900, some time after Section 725 of the Code was amended so as to be applicable to heat as appears from above section as quoted. The franchise granted by said ordinance was subject to the power reserved in the city council "to regulate and fix the rent or rate for heat" and this might not be "*abridged by ordinance, resolution or contract*". Or, as is often said, the statute necessarily is read into the franchise and forms part of it. Appellant expresses some doubt as to the meaning of the clause last quoted. Its manifest purpose is to forestall any attempt by ordinance or resolution of the city or through any contract to permanently or for any specified time fixing the compensation for services rendered or material furnished. Whatever may have been the ordinances of the city in granting a franchise or independent thereof or resolution of city council, or contract with city or private parties the power is continued in the city council to regulate and fix the rates of compensation thereafter to be exacted. The power is a continuing one and one city council may not tie up its successors by anything it may do in the matter covered by this statute. The granting of such a franchise is by the city council, even though its approval by the electors of the municipality is essential to its validity. Section 776 Code, and the rates for service therein specified, are subject to subsequent adjustment as this may be deemed expedient or necessary by the city council. That the state has power to regulate

and define charges to be exacted by public utility corporations is not questioned nor is it doubted that such power may be delegated to municipal corporations.

See 3 Dillon Mun. Corp. (5th Ed) 2131, et seq. And what may be granted is not freed from legislative control for Section 1619 of the Code declares that "the articles of incorporation, by-laws, rules and regulations of incorporations hereafter organized under the provisions of this title, or whose organization may be adopted or amended hereunder, shall at all times be subject to legislative control, and may be at any time altered, abridged or set aside by law, and every franchise obtained, used or enjoyed by such corporations may be regulated, withheld, or be subject to conditions imposed upon the enjoyment thereof, whenever the general assembly shall deem it necessary for the public good". This section, with that previously quoted, disposed of the contention with reference to the impairment of the obligation contained in the so-called contract.

Sioux City Street Railway Company v. Sioux City, 78 Iowa 742. *Sioux City Street Railway Company v. Sioux City*, 138 U. S. 98 (34 L Ed 898). In the last case it was said:

"No question can arise as to the impairment of the obligation of a contract, when the company accepted all of its corporate power subject to the reserve power of the state to modify its charter and to impose additional burdens upon the enjoyment of its franchise. Under the Act of March 15, 1884, it was made a condition to the enjoyment of its franchise by the company that when the city should determine that the streets should be paved, the company should bear a certain portion of the cost thereof, and any prior contract between the company and the city in regard to paving was subject to the provisions of Section 1090 of the Code".

See also *Iowa Telephone Company v. City of Keokuk*, 226 Fed. 82.

Stanislan County v. San Joaquin & Company, 192 U. S. 201; 48 L ED 406.

Electric Light Company v. Arkadelphia, 99 Ark 178; 137 S. W. 1093.

The principle is tersely stated in the last case:

"An ordinance regulating rates of a public service company cannot be said to impair the obligation of the contract with the company, whether the ordinance granting the franchise to

use the streets was passed after the enactment of a statute authorizing municipalities upon complaint filed to examine rates and determine whether they are reasonable and fix such prices to be paid as they may deem to be a reasonable charge, since such statute will be read into every contract to which it relates, made since its enactment.

"The authority to regulate and fix rates of compensation is not limited to reducing these. It includes the power to increase as well, and the city council may decrease or increase as may be necessary in determining those that shall be just and reasonable. Nor is it essential that change of rates by the city council shall rest on some additional consideration. It is enough that the law has empowered that body to regulate and fix rates to be exacted and the conditions of the franchise with such authority reserved is sufficient consideration if any were necessary. At the time ordinance 98 was enacted, Section 720 of the Code contained no provision for the amendment of the franchise and counsel for appellant contend on that ground that it is invalid. But a readjustment of rates of compensation in no manner involves an amendment to the charter of the company for that, as seen through the statute which must be read into the ordinance granting the franchise authorized the regulation and fixing of such rates by the city council at any time. It is one of the things the franchise authorizes to be done thereunder and in so doing the franchise is not amended but its terms carried out. The method of regulation and fixing rates is not prescribed and this being so it was competent for the city council to exercise the power conferred in its own way.

Merchants Union Company v. Railway 70 Iowa 105.

Slocum v. City of North Platte 192 Fed. 252.

In the last case it was said that: "The general rule is that where the charter of a municipal corporation authorizes its council or managing board to act upon a matter, but is silent as to the manner in which it shall so act, the authority may be exercised by resolution duly passed or vote duly taken".

We see no valid reason for criticising the fixing of rate by amending a section of the franchise. It was the most direct and simple way of exercising the power, specifically conferred by Section 725 of the Code, Supplement (1913), and in no manner impinged upon anything on which the approval of the electors was binding. Their approval was merely of the rates as temporarily settled but with the distinct understanding that these might be increased or decreased or otherwise changed by the city council.

Abolish Public Service Commission

By Senator George F. Thompson, Chairman New York Legislature Investigation Committee

What would I do with a public service commission, I have been asked. In the first place I have not got one. Neither has the state. The state thought it had provided one for the people, but it has turned out to be a joke—on the state.

What we have called a commission consists of two heatless, meatless, spineless and idealess organizations to which the governor annually appoints one or more high class politicians whom the senate hesitatingly confirms in order to save party difficulty. And from which, some of those who annually retire, become associated with corporations at a larger salary than they received from the state. Many excellent men have been appointed, but the organization is so fundamentally faulty, that it will not assimilate them, or give their ability a chance.

The governor once tried the idea of appointing an especially qualified man to the commission. But the experiment failed. There was no place for him. He quit, and went to work at something else where he had a chance of accomplishment. Of course, this rule, like others, has its exceptions.

But the commission, overcharged with functions, has no policy. Multiplied ten times with heads, has no head. Entrusted with detailed powers to be exercised for the public, commands no respect. Since it was created to supervise and regulate, the service has steadily grown worse and the rates have steadily grown higher.

I do not mean to insinuate that they do not do anything. They do. They can investigate sufficiently in three months to raise a rate, while to lower a rate they have been known to investigate seven years, and then approve a compromise between the corporation and the complainant.

They have accumulated so many clerks, stenographers, engineers, statisticians and others that they have constantly been obliged to move into larger quarters and thus increase the rents. They also have obtained statistics which they store away and keep clerks and statisticians so

busy tabulating them that nobody knows what they contain, where they are or what it is all about. This policy requires increased rent space and also requires public serving corporations extra expense in making up reports, and gives them another excuse for raising of rates.

They also make orders. Thousands of them. This keeps clerks busy. These orders get about the same attention as the statistics. They are mostly issued to approve something or other that the corporations want to do, or prevent someone else from constructing new and additional facilities.

They also make expense. For instance, according to the last budget they had employed 63 stenographers, all certified as properly qualified by the Civil Service Commission, each drawing from \$720 to \$1,800 per annum. Yet, the commissions have each steadily employed stenographers themselves in holding hearings and making investigations. Owing to the care with which they and the Civil Service Commission have selected stenographers, they have not one on either commission who is competent to take the minutes of the hearings or investigations. Consequently they call on outside stenographers to perform this duty in both commissions at an additional expense, at folio rates.

They employ in the first district upwards of 1,000 engineers. These are carefully selected on the approval of the Civil Service Commission. Yet, whenever they have an engineering problem involving expert advise, they call in an outside engineer at an expert fee and advise with him. The cost is charged to the taxpayers.

In New York City the transportation facilities have become so bad that they have been obliged to put the state to an annual expense for automobiles to enable the commissioners to get to and from their duties.

In all the commissions have cost the taxpayers for the upstate or second district approximately \$450,000 per year and the downstate or first district approximately \$650,000 per year, a

total of approximately \$1,100,000 per year to the taxpayers of this state. In addition to that, the New York city commission costs the city of New York approximately \$3,000,000 per year for administering the construction of subways.

That is where the joke comes on the state, and this is about all that the so-called Public Service Commission, in very nearly 11 years of experimenting, has done for the betterment of the public in whose interest it was supposed to be originally created.

Inaugurated for the purpose of affording a function with which the public could economically and expeditiously enforce the rights of individuals upon the powerful transportation and utilities corporations, insure adequate service and fair rates, and protect the rights of stockholders, they have disappointingly turned out to be only an agency through which the people are subjected to more detail than before, and at more expense.

It is impossible to contemplate that the directors of public service companies if left alone and unhampered by the so-called supervision and regulation of the Public Service Commission, would think of giving the people a worse service or a much greater rate than now exists.

Details as to the administration of the commission are not lacking, and can be supplied by any individual patron of a public serving corporation who has ever been tantalized by what the considered an unfair exaction. He can complain, but beyond receiving a polite letter from the clerk, acknowledging receipt of his communication, he will be ignored. He can get further consideration by hiring a lawyer, but he in turn can only get further consideration by hiring investigators, engineers and experts. A complainant, with influence, might interest the local authorities who can turn the local taxpayers' machinery to his assistance, and, by extra expense to local taxpayers by employing engineers and experts can get consideration. But the cases of this kind that have produced results satisfactory to the complainants have been very scarce, and at the present time quite unknown.

The expediency of the commission depends on which side of the question the function is exercised. In the city of New York the Third Avenue Railroad Company was owned by the Interborough Consolidated Company, a large

and powerful corporation. Complaints as to the service of the Third Avenue Company were numerous and serious. After months of delay an order was made by the commission providing for months more of delay. And at the end of that delay an extension was granted. The commission finally refused to prosecute the Third Avenue Railroad Company, when it thereafter ignored the order altogether.

While on the other hand the Queens Southern Railroad operating a few cars in the borough of Queens, a weakly capitalized corporation and competing with the Interborough, upon one complaint as to the service was ordered before the commission for a hearing on the same day. An order was made improving the service and requiring compliance on the next day on penalty of losing the company's franchise for failure. Upon an application for an extension this company was given just 48 hours to comply with the order. It complied with the order and saved its franchise and still has it. They have been waiting now for five years for an order from the Public Service Commission approving an issue of capital stock, and have not received it yet.

In the city of Lockport application was made by a large number of people for an order requiring the International railroad to build a depot. A hearing was held, and the need for a depot was conceded. The commission delayed making any order on the proposition three years, and then it did not make an order. But the railroad company became so ashamed of its station that it built a new one on its own account, without waiting for an order from the Public Service Commission.

While in the spring of 1915 a law was enacted requiring operators of jitney busses in cities to get a certificate of necessity from the Public Service Commission. When this law took effect a private individual was operating a motor stage from the city of Lockport to the village of Olcott along a road which paralleled the line of the International railroad company. Without any complaint at all, so far as is known, the Public Service Commission of the state of New York found time and inclination to prevent this individual competing with the International railroad company, and in less than three months put him out of business on a technical construction of the law that was not intended

to cover motor busses operating outside of the city limits.

Illustrations of this kind of expedition and performance of functions by the Public Service Commission could be multiplied beyond the limit of a reasonable history of the case. Details enough have been given so that the reader by this time ought to answer the question which is the subject of this article.

Obviously the Public Service Commission ought to be abolished. The state is then confronted with the duty of establishing a new policy in regard to public serving corporations and operation of transportation and utility facilities. They can be operated either (1) by directors of corporations themselves without hindrance; (2) by regulation, by the state or municipality; (3) by the state or municipality through public ownership.

From my experience it is my contention that the people are not entitled to be asked to permit an unregulated operation. That a real regulation has not been had and that the Public Service Commission have not given a real regulation, I have hoped and still hope that the state will enact a scientific Public Service Commission law which will create a real policy for regulation and an organization, stronger than the corporations themselves, which will produce results.

The contented corporations, of course, oppose this view, and ask to be left alone. But to them the state should say plainly and immediately that unless the public can be prevailed upon to accept legislation providing effective regulation, that the state will be bound in any ordinary intelligent duty to the people to provide for public ownership of public utilities and right of municipalities to regulate the private concerns so engaged.

Will the legislature read the sign of the times? Will it see that the people of the state, who have been very patient, demand immediate relief from conditions daily growing more insufferable?

The Use of Road Oil

(Continued from page 12)

heated to 150 degrees C. (302 degrees F.). It shall meet with the following requirements:

1. The flash point shall not be less than 150 degrees C. (302 degrees F.) as determined by the open cup method.
2. The specific viscosity (Engler) 50 c. c. at 40 degrees shall be from 40 degrees

to 90 degrees.

3. The per cent of asphaltenes (total bitumen insoluble in 86 degrees B. Naptha) shall not be less than 10.0.
4. The per cent of fixed carbon shall not be less than 6.0.

Specification C—

Road Oil for hot application to gravel, sand clay or macadam. The road oil shall be homogeneous, free from water, and shall not foam when heated to 150 degrees C. (302 degrees F.).

It shall meet the following requirements:

1. The flash point as determined by open cup method, shall not be less than 150 degrees C. (302 degrees F.).
2. The specific viscosity (Engler) 50 c. c. at 40 degrees C. shall be from 40 degrees to 90 degrees.
3. The per cent of asphaltenes (total bitumen insoluble in 86 degrees B. Naptha) shall not be less than 12.0.
4. The per cent of fixed carbon shall not be less than 7.0.

Specification D—

Special road oil for broken stone and coarse gravel surfaces. The road oil shall be homogeneous, free from water, and shall not foam when heated to 175 degrees C. (347 degrees F.). It shall meet the following requirements:

1. The flash point as determined by open cup method shall not be less than 175 degrees C. (347 degrees F.).
2. The float test at 32 degrees C. shall be from 75 inches to 150 inches.
3. The per cent of asphaltenes (total bitumen insoluble in 86 degrees B. Naptha) shall not be less than 13.0.
4. The per cent of fixed carbon shall not be less than 7.0.

Tests of the physical and chemical properties of the road oil shall be made in accordance with the methods as prescribed in United States Department of Agriculture Bulletin, No 314.

NOTE—The use of the grade of road oil specified in Section "D" is only warranted on very good macadam surfaces or on gravel surfaces which do not contain an excess of clay or fine material.

HE PASSED

Chief of Police—"If you were ordered to disperse a mob, what would you do?"

Applicant—"I'd pass around the hat."

Movement for Proportional Representation

By C. G. Hoag, General Secretary-Treasurer, American Proportional Representation League

Proportional representation was first adopted for public elections in Denmark in 1855 and in the canton of Ticino, Switzerland, in 1889. Since its adoption in Ticino it has spread to eight other Swiss cantons and to the following countries: Belgium, Sweden, Finland, Wurtemberg, Tasmania, South Africa, Iceland, Bulgaria, New Zealand, Canada, Holland and the United States.

In some of these countries, for example Sweden, the system is used for all parliamentary, provincial and municipal elections. In other countries the use is very limited. For example, in New Zealand, where it was recently made optional for cities, only the city of Christchurch has adopted it thus far. In Canada it was recently used for the first time in Calgary, Alberta, and it has recently been adopted by several cities in British Columbia under the optional Act of 1917 granting it to all cities of that province.

Proportional representation has been adopted by two American cities, Ashtabula, Ohio and Boulder, Colorado. Ashtabula's experience with it was the subject of the third article in this series. Boulder's first election under the new system was held on December 11. Following are quotations from Boulder newspapers:

Various members of the charter convention expressed satisfaction today with the manner in which the first vote under the Hare system worked out. All were of the opinion that its success was great considering the difficulties which were expected at the first vote. . . . "As to the question of expense [said City Clerk O. P. Clark] it will run about the same as the last city election under the old system of voting."

The Hare system of preferential voting had its first try out yesterday. Election clerks and officials naturally were forced to be slow in counting and tabulating, but the majority of them are warm in their praises of the system and believe that the Hare system will grow in popularity at each succeeding election.

The Daily Camera: The new council was chosen by a plan of voting that is an experiment, but it must be said for it that it expresses the will of those who voted.

The Boulder News-Herald: In the make-up of the council the city therefore has one of the city's best physicians, four successful business men, one of the city's most capable women, a lawyer and legislator

whose record at the last session of the legislature was one of effective achievement, and two able men possessing engineering training and experience.

Under the old system of voting it is very doubtful if such a well-balanced council would have been obtained. The Hare system lived up to the claims made for its superiority over other systems and we are glad the charter convention adopted it.

The Hare system, the same that is used in Canada, Ashtabula, Boulder and all other English-speaking communities which have proportional representation, is prescribed for the entire senate and for part of the house of commons to be set up in Ireland according to the terms of the "Home Rule" Act of 1914. It was unanimously recommended for some two hundred members of the British parliament itself by the Speaker's Conference on Electoral Reform, a committee of thirty-two appointed in the autumn of 1916 under the Asquith government. As that conference included representatives from all parties and leading groups in the kingdom, it was expected that its unanimous recommendations would be readily accepted by parliament. Up to the present time (December 26), however, P. R. has not been accepted by the house of commons. The ultimate outcome is in doubt, as the fight is to be renewed in the house of lords, where P. R. has the active support of some of the most influential peers, including Lord Bryce, Lord Courtney and Lord Lansdowne. In the commons, it may be added, proportional representation is actively supported by many of the leading members, including former Premier Asquith, former Premier Balfour, Lord Robert Cecil (Minister of Blockade), Sir F. E. Smith (Attorney-General), Dr. Addison (Minister of Munitions), Mr. Prothero (President of the Board of Agriculture), Mr. Fisher (President of the Board of Education), Sir Alfred Mond (First Commissioner of Works), Mr. George N. Barnes (Minister of Pensions), Mr. McKenna (Ex-Chancellor of the Exchequer), and Sir John A. Simon (Ex-Attorney-General).

In France proportional representation was

one of the leading issues for some three years before the outbreak of the war. Among the leaders for the reform there were President Poincare, Ex-Premier Briand, and the late Jean Jaures, the great socialist orator. Before the war a bill to apply proportional representation to French parliamentary elections was passed by the Chamber of Deputies. On the rejection of the bill by the senate in March 1913, the Briand Ministry fell. In the parliamentary elections which followed, however, proportional representation, which was regarded as one of the two chief issues of the election, was sustained by nearly two-thirds of the voter? Apparently, therefore, it was only the outbreak of the war that prevented the adoption of proportional representation by France in 1914 or 1915.

Even the war is not preventing the rapid progress of the cause in many parts of the world, including England, Canada, Holland and the United States.

The chief reason for the rapid acceptance of this new principle of representation throughout the world is, of course, its success where it is already in operation. Wherever the new system is adopted it gives satisfaction to nearly all elements of the community, decreases the bitterness of partisan and factional struggles, improves the personnel and increases the authority of the representative body, and increases the loyalty and co-operation for the public welfare and all elements in the community.

It would be easy to quote in support of proportional representation leading statesmen and journals representing all the countries which have adopted the new system. For an article of this kind, however, it must suffice to say that these testimonials, representing as they do in many cases *all* the political parties in the countries concerned, are quite convincing.

It is not wise for American cities generally to consider very seriously whether it may not be wise for them to take steps to adopt the plan of government which seems to be indicated as the best by European as well as by American experience? That plan is the commission-manager plan resting on the basis of a commission or council elected by the Hare system of proportional representation.—New Jersey Municipalities.

MUNICIPAL BONDS SHOW MARKET STRENGTH

Municipal bonds in February, as in the previous month showed considerable strength and prices today are not a little better than they were in the last few days of December. According to The Daily Bond Buyer of New York, the factor which seems to be particularly favorable at the moment in creating a demand for municipal bonds on the part of the dealers who bring out new issues as well as banks and private investors is the feeling that the supply of new issues is going to be materially reduced as a result of the restrictive influence of the Capital Issues Committee. This body, working on a purely voluntary basis, is seeking to pass on the necessity for the floatation during the period of the war of every issue of state or municipal bonds exceeding \$100,000. Already several issues have been judged to represent non-essential improvements and therefore immediately withdrawn from the market by the would-be borrower. There is no doubt but that the issuance of large blocks of city bonds is going to be reduced to the minimum. The feeling is growing that, if the supply of these tax-free and trouble-free bonds is reduced in any material amount, values will improve in spite of new Liberty Loans carrying higher interest rates.

The following record of total amount of state and municipal issues in January and February in recent years illustrates the extent to which the supply of new bonds is decreasing:

	January	February
1918.....	\$17,775,850	\$19,589,399
1917.....	39,345,640	24,987,302
1916.....	51,410,817	35,915,303
1915.....	31,366,878	39,610,087
1914.....	84,206,933	26,870,680
1913.....	42,933,341	21,102,868
1912.....	26,497,485	30,837,312
1911.....	84,574,793	21,677,661
1910.....	12,012,027	17,626,556
1909.....	32,687,034	22,293,536

CONTRACT LET AT HARLEM

The contract for installing a lighting system at Harlem was awarded by the town council to the Electric Construction Company of St. Paul, for \$4,550. This was considered the best bid, though there was one for \$175 less.

Municipal Bath Houses

By F. E. Wirebaugh, Welfare Department Engineer, Toledo, Ohio

The practice of bathing has since the earliest period of history been regarded in all countries as conducive to the health and welfare of the human race. The word bath means, first of all, the washing of the body, or its exposure to water or other fluid agents for the purpose of keeping the body clean, improving the health, the restoration of health or the cure of disease.

MOST DISEASE IN BATHLESS DISTRICTS

It has been shown by statistics that less than 45 per cent of the homes of the people of this country have bath rooms, and in the congested districts of the cities, this has gone as low as 23 per cent. A glance at the maps of the Health Division will show that the greater number of cases of infectious and contagious diseases occur in those districts where the bathing facilities are the poorest. These districts in our own city, are roughly the Canton Avenue section and the foreign settlements.

THREE TYPES OF BATH HOUSES

Generally speaking, we may distinguish three systems of baths for bath houses, viz: the swimming bath, the tub bath and the spray or shower bath.

SWIMMING POOL COSTLY

Of these the first, the swimming bath, is not a cleansing bath in the sense of the above act. In a swimming bath the use of soap is not and cannot be permitted. The large and luxurious marble or tile-lined tank or plunge is not intended for cleansing purposes. Moreover such baths are expensive to build and require large quantities of both cold and warm water. They furthermore require preliminary cleansing baths, in which persons must soap and scrub themselves before being permitted to enter the pool of clean water. All this involves increased expense, both in cost and in maintenance, therefore the swimming bath is almost out of the question for free public baths.

TUB BATH IMPRACTICABLE

The second form of bath, namely the tub bath, is also unadapted, and this for the fol-

lowing reasons:

(1) Cheap tubs, such as zinc or copper lined tubs, soon become dented in use, lose their polish and cleanly appearance, wear out quickly and have to be replaced at frequent intervals. Galvanized iron tubs have a rough surface and untidy appearance. Porcelain-lined or enameled iron tubs which are better, are much more expensive and the enamel surface—unless used with care, which in a public free bath house cannot be expected, is apt to chip or crack off. The best tubs, viz, vitreous ware or heavy solid porcelain tubs, are clumsy and expensive, and require very large quantities of hot water.

COSTLY TO INSTALL AND MAINTAIN

(2) The maintenance of tubs and of bath-tub fittings is likewise quite expensive.

(3) Tub baths require a great deal of space.

(4) With tub baths much time is lost in filling the tub, in tempering the water, in emptying the tub after the bath, and in cleaning and scrubbing the same after each use. During the rush hours there would be a good deal of temptation for the bath attendants to neglect the thorough cleaning of tubs.

USE MUCH WATER AND FUEL

(5) Tub baths require provision for a large quantity of water, and proportionately much hot water; hence they are expensive in the consumption of fuel for heating the water.

(6) Bathing in tubs requires a good deal of time for each bather.

(7) When unclean persons take a bath in a tub bath, their bodies are very soon immersed in dirty water, and in order to become clean they necessarily have to empty and refill the tub several times, which means a greatly increased water consumption.

DANGER OF INFECTION

(8) In the use of tub baths in free public baths, there is some real, not merely a fancied danger of transmission of skin or contagious diseases from one person to another.

(9) Finally it is a fact well known to physicians, that bathing in tubs has often a debili-

tating effect.

I have enumerated the chief objections to tubs at length, because this matter is not generally understood. It is, for the reasons given, an undisputed fact that tub baths are not well adapted as cleansing baths in public bath houses.

SHOWER BATH THE BEST TYPE

The third form of bath mentioned, namely, the shower, spray or rain bath is by far the best form for public baths. It is economical, practical and efficient. It is also the simplest, quickest, cheapest, cleanest and in all respects best form of bath. It requires the least space, the least time, the least amount of water, the least amount of fuel for water heating, the least attendance and the least cost of maintenance. It cleanses, refreshes and invigorates the bather.

A visit to any public bath house fitted with sprays discloses the following chief advantages of the rain bath:

ECONOMICAL

(a) Such a bath is always ready for use, it requires but little attendance and is therefore economical in management. No time is lost in filling and emptying the tubs; the water issues from the spray already tempered to the right degree, very little cleaning and scrubbing after the bath is required, hence the bath is economical in management.

(b) The shower bath is cheaper in first cost than tub baths. The expenses for maintenance and for repairs are considerably less. The entire apparatus required in fitting up shower baths is simple and not liable to get out of order.

SAVES TIME AND SPACE

(c) The shower bath requires less time in application, hence a larger number of persons can bathe in a given time.

(d) The space occupied by the shower bath is less than that required by tubs, hence more bathers can be accommodated in a given space.

(e) The shower bath requires much less water than a tub bath; it is therefore economical in fuel.

MOST SANITARY

(f) The tepid or cool spray has a well known mechanical and stimulating effect. From a sanitary point of view, the following are matters of greatest importance: first, the body of the bather does not come at all in contact with the soiled water, and the water falling from the

douche passes away almost as fast as delivered; second, there is no danger of communicating contagious diseases from one bather to another.

ESTIMATED COST OF CONSTRUCTION

Building 50x100 feet, 100 units or compartments for showers.

Estimate by compartments or units @ \$850.00 each, \$85,000.00.

For estimated cost of Bath House as above with pool 30x60 feet, 3½ to 6 feet deep, to contain 68,000 gallons, add \$1.50 per square foot of pool or 1,800 square feet @ \$1.50—\$2,700.00; then estimated cost will be \$85,000.00 plus \$2,700.00 or \$87,700.00.

ESTIMATED COST OF MAINTENANCE

(Based on number of bath units)

One hundred units at \$276.00 per year per unit, \$27,600.00; on a basis of 2,000 baths per day 330 days per year, 660,000 baths per year, approximate cost per bath will be 4.2c, which is perhaps the average.

Cost of maintenance of house with pool will be approximately \$26,500.00, and cost per bath will be approximately 7.7 cents. The average being about 8 cents.

The house with showers only will use approximately 27,000 gallons of water per day, and the house with pool will use approximately 81,500 gallons per day, if the pool is cleaned nightly.—Toledo City Journal.

REPAIR YOUR PAVEMENTS

If you have decided to limit your new improvement program this year you should spend the energy of your street department in bringing your present pavements into the best possible state of repair. It will be time and money well spent to fix up your pavements and will save your taxpayers thousands of dollars.

CLEAN UP

It ought not to be necessary to have a clean up week but in most cities and towns this is necessary so get ready to do your municipal cleaning up as early as the weather will permit.

THE MUNICIPAL MARKET

At the front of this issue will be found a page headed The Municipal Market. You will get more and better prices on your materials and supplies if you make use of this service.

Garbage and Rubbish Disposal

New Methods of Disposal Recommended by Baltimore Engineer

As the result of an extensive tour of American cities for the purpose of studying garbage disposal methods, Mr. Walter E. Lee, Water Engineer of Baltimore, Maryland, has recommended new methods of garbage and rubbish disposal for that city. His recommendations follow:

Preparation of refuse should be made by householders so as to give a primary separation into three classes: Garbage, ashes and rubbish.

Garbage and ashes should be separately deposited in standard galvanized iron receptacles, uniform in size and shape, and the rubbish gathered and tied in bundles.

Existing ordinances on the preparation and separation of refuse and on receptacles for its deposit should be revised, as necessary, to insure correct handling in uniform containers.

Garbage, ashes and rubbish should be separately collected in compartment trucks and trailers on a single joint collection trip to supersede the two and sometimes three trips required under present methods for the same work.

Incineration of garbage in any residence, apartment house, hotel or other building should be prohibited by ordinance on account of the resulting objectionable and unhealthy smoke and odor.

The collection of garbage by the municipality should be extended to cover all kitchen and diningroom refuse from hotels, boarding houses, apartment houses, restaurants, saloons or any other place where food is prepared for human consumption.

The collection of trade waste, consisting of refuse materials of all kinds, including fruit skins, pea hulls, tomato skins, corn husks and cobs, resulting from the prosecution of any business, trade or occupation conducted for profit should be discontinued by the city, but such should be accepted at the dumps when delivered by private collection carts which have been licensed by the Commissioner of Street Cleaning.

Separated garbage should be finally disposed

of at one central plant by treatment under a "closed" process of reduction without vapor, smoke or odors.

Specifications should be immediately prepared and bids advertised for the "Removal and final disposal by reduction of market refuse, dead animals and garbage from all sources" by contract through competitive bidding on a payment to the city for each ton of 2000 pounds delivered to the contractor's scows from the city water-front garbage dumping stations or hauled by trucks, wagons or carts directly to the plant.

The city, under the specifications, should have the option to acquire the plant at the end of the term on a proper basis of first cost, depreciation and proper earnings.

The duration of the contract for the removal and final disposal by reduction of market refuse, dead animals and garbage from all sources should be not less than 10 years to induce sufficient new capital to enter the field and not over 15 years to permit the city to embrace any important improvements which may be made in the next decade.

The minimum capacity of the garbage reduction plant should be 500 tons per 24 hours.

The increasingly long-team haul in the Northern and Western Districts should be reduced by having the collection carts dump at a garbage receiving relay station in each district over platforms or through chutes into two or three 5-ton trailers of a tractor-drawn garbage relay train which transports the garbage to the water-front garbage dumping station.

The present water-front garbage and ash loading station should be rebuilt and housed in a superstructure which will prevent the escape of ash dust and odor during the hot, summer months.

Separated ashes should be disposed of by filling low places, by dumping in ravines already sewered, on marsh land to the southwest of the city, and on water edge to the Port Warden's line, properly retained by piling or bulkheads.

Loading stations for ashes should be erected

in those districts where it is cheaper to transport ashes in 8-cubic yard removable steel bins on flat trolley cars than to continue the direct collection cart haul, which tends to lengthen, as successive dumping places become filled, and as the outlying sections of the city are improved.

The use of locomotive cranes and belt conveyors should be more generally employed in the unloading and distribution of ashes at the dumps, especially on water-edge sites.

Separated combustible rubbish should be disposed of by burning in small incinerators erected in each district at its loading station. Incinerator ash, incombustible and unsalable rubbish should be disposed of in the same manner as household and factory ash.

Sorting privilege of salable rubbish, including rags, rubber, metals, bottles, etc., should be annually awarded by contract to the highest competitive bidder.

Street sweepings should be separately collected from ashes and annually sold under award to the highest competitive bidder, delivered to the contractor at the district incinerator with the right of the contractor to select those loads that have reasonable fertilizing value.

A gasoline-driven vacuum cleaner, with dirt storage trailer, should be purchased and used for night cleaning during dry weather of downtown business streets paved with sheet asphalt.

All present wooden collection carts, as they become useless, should be replaced with steel carts having combination ash and garbage compartment body, fitted with semi-cylindrical covers and sliding and dumping lever.

The Board of Estimates has instructed Mr. Lee to prepare specifications along the lines of his recommendations.

The present average garbage production for the city of Baltimore from households, markets and packing-houses is 0.58 pound per capita, per day, with a maximum quantity in late summer 15 per cent greater than the daily average, or 0.68 pound per capita per day. For a population of 930,000 in the city of Baltimore in 1930 and allowing for 40 per cent reserve capacity account of accidents, repairs and replacements, there would have to be provided a central garbage reduction plant having a minimum daily capacity of 500 tons per 24 hours.—Engineering and Constructing.

MAYOR R. S. McNUTT

Robert S. McNutt, mayor of Muscatine, will be a candidate for re-election. Two other candidates are in the field and while many voters have selected their candidates, others are confronted by the annual query, "who are you going to vote for?" The answer will have an important bearing upon the result.

Arguments to mesmerize the voter into casting his ballot for this or the other candidate are being presented by men who have no real arguments other than those of partisanship. Can, however, the voter who is anxious to make his ballot count for the men who will best serve the interests of the city regardless of partisan scruples, conscientiously say that there is more than one logical candidate?

Is there any reasonable argument to be presented unfavorable to the candidacy of Mayor McNutt? It is a fair question and it is the only question that obtains in the present campaign. Is there an official sin of commission or omission of which Mayor McNutt has been guilty? Has any municipal problem come before the city or before the council that could have been solved more satisfactorily by any other citizen had he been in Mayor McNutt's place?

What would be gained by electing to office either of the candidates who would like to unseat Mayor McNutt? Is either of the gentlemen arrayed against Mayor McNutt keener, more alert, more active or more anxious to serve the interests of the working man? Is either of the opposing candidates vainglorious enough to declare that he surpasses Mayor McNutt in mental acumen or in his grasp of public affairs?

What can be said in favor of the other candidates that cannot be said in favor of Mayor McNutt? He has filled the office with dignity and with conspicuous ability. He has been quick to act when questions have come up affecting the interests of Muscatine. Could any other candidate do more?

Mayor McNutt has been on the firing line in times of hot water, coal famine or whatever the crisis involved. He has not been afraid to act and he has not been terrified into inactivity by threats. He has had the backbone to stand by his convictions so long as the beneficiary was to be the taxpayer and the laboring man.

Mayor McNutt has been tried. The voters, taxpayers and the working man know exactly where Mayor McNutt stands when public questions come up affecting their interests.

Mayor McNutt has the initiative no one will deny. He has executive ability. He is alert and quick to grasp a situation.

He is not afraid to put on overalls and take a spade to meet the situation if it demands it. The record of his activities when floods threatened the lower end of the city proves that. The voters of Muscatine know they can make no mistake in re-electing McNutt. A vote for either of his opponents might be a mistake fraught with tragic consequences for Muscatine—The Muscatine Journal.

AUTOMOBILE ACCIDENTS IN AMERICA

A recent issue of "The City", the leaflet published by the San Francisco Bureau of Governmental Research, stated "San Francisco is exceeded by only two cities in the United States in respect to deaths due to automobile accidents, these cities being Los Angeles and Detroit". Being somewhat surprised as to these facts, the League made some investigations which obtained the following figures compiled from the "Economic World" showing the experience of leading insurance companies in death rate per 100,000 population due to automobile accidents:

Los Angeles.....	17.0
Detroit.....	13.9
San Francisco.....	13.6
Newark.....	13.4
Buffalo.....	12.2
Providence.....	10.2
Chicago.....	10.0
Washington.....	9.9
Philadelphia.....	9.6
Pittsburg.....	9.1
St. Louis.....	9.1
Ten largest cities combined.....	8.3
New York.....	8.1
Boston.....	6.4
Cleveland.....	6.0
Baltimore.....	5.1

It will, of course, be natural that in those cities like Los Angeles and Detroit, in which there are the most automobiles in comparison to the population, accidents will be more frequent, but at the same time we hope that through a process of education with the motorists, and with the increasing efficiency of our Traffic Bureau, that

these results can be so changed that Los Angeles will cease to occupy the unenviable position as being that city in United States where a person is in most danger from automobiles.

Statistics of accidents connected with the operation of street railroads bear out the same conclusion. The report reveals no less than 73.8 per cent of the 8,228 street car accidents in the city arise from collisions with automobiles. Accidents from all other causes showed a marked decrease over previous years but the enormous total of motor vehicle accidents makes the aggregate larger than ever before.

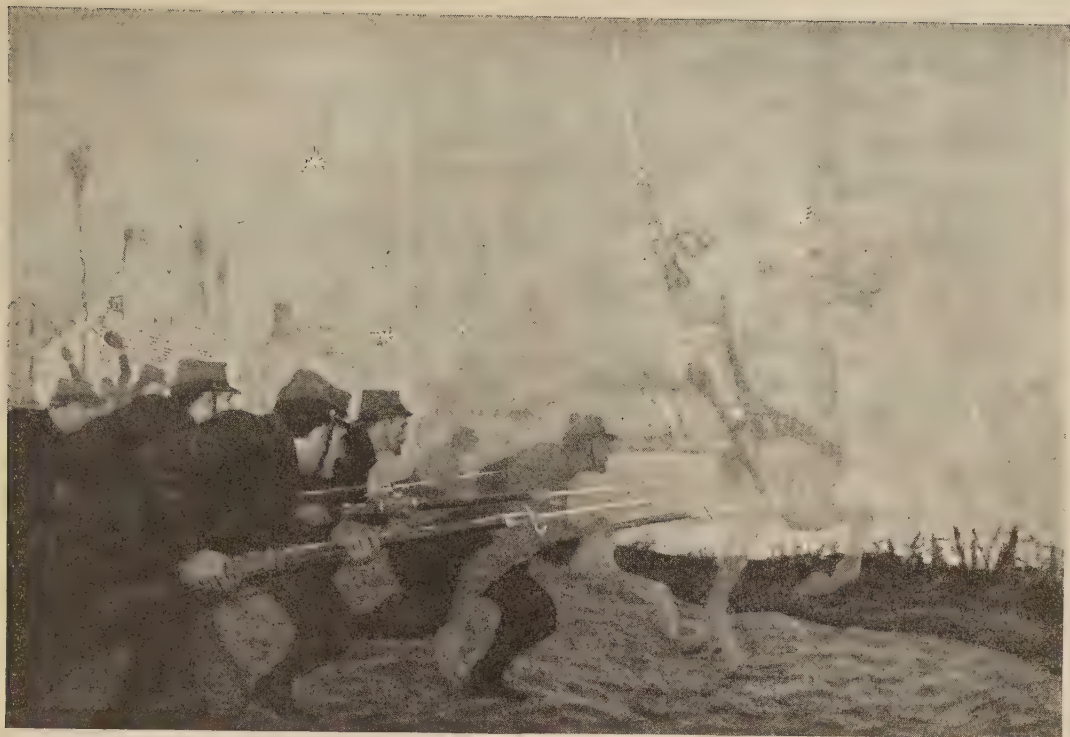
Something must be done to bring drivers to a realization of the danger to themselves and to the public arising from the present reckless abuse of their street privileges.—Municipal League Bulletin.

CHEAPER ELECTRIC LIGHT

Miles City has the cheapest electric light schedule in Montana. The announcement Monday evening at the council meeting that the maximum rate for consumers was to be reduced from 12 cents to 10 cents came as a most pleasing surprise.

A number of elements make the reduction possible at this time. One of the principal reasons, however, is the fact that politics has for years, in fact ever since the plant became municipal property, been absolutely barred from in any way entering into the management.

At the present time the city has an asset of some \$220,000 in the electric light plant, and few realize that every cent of this property has been paid for out of earned profits. Taking the outstanding bonds of \$30,000 which are not redeemable for a number of years into consideration, the city has an asset of \$250,000. In addition to the revenue derived from electric light and power, the city also received a handsome income from the municipal heating plant which has been found to be a paying proposition. The steam from the power plant which otherwise would be wasted, is utilized in heating many of the large buildings in the city. The service is excellent and gives complete satisfaction, while the rate charged has been found to be more economical to the consumer than he could otherwise heat the building.—Miles City Star.



The Miracle of the Marne

The battle of the Marne halted the rush of the Germans towards Paris. It aroused the French to superhuman bravery. They fought as if led by the spirit of the Maid of Orleans herself.

The Marne was a demonstration of the power of patriotism with its back against the wall. The same sacrifice of self, the same love of country and unity of purpose that inspired the French people must inspire us, and we must win the war.

We are sending our best manhood to fight for us. They must be armed, fed and clothed, cared for through sickness and wounds. This is the work of every individual as well as the Government.

It is the proud duty of the Bell System to coordinate its purpose and equipment to the other factors in our national industrial fabric, so that the manufacture and movement of supplies to our boys abroad be given right of way.



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REPORTS ON WATER WORKS ORDINANCE

At an adjourned meeting of the Clinton city council on February 28, Alderman George Chatterton, chairman of the ordinance committee, presented a report of the changes which had been made in the proposed water works franchise ordinance by the council in its sessions as a committee of the whole during the last few months. No action was taken on the ordinance, but copies of the revised ordinance and the summary of the changes made in the original, were ordered to be printed to be circulated among the councilmen.

The city attorney is likewise to go over the ordinance, and make a report and a copy is to be submitted to the Water company. The ordinance is then to come up for discussion at a future meeting of the council.

Councilman Chatterton's report of the changes, summarized briefly by section was as follows:

CHANGES IN WATER WORKS ORDINANCE

Sec. 1. Water to be analyzed by company monthly.

Sec. 3. Rates to be determined by board of control. Company to submit financial report annually. Books and records of the company to be kept in the Clinton office. School districts to be considered as single consumers.

Sec. 4. Limit of error for meters 2 per cent instead of 4 per cent.

Sec. 5. Lead pipe connections.

Sec. 7. One price for all fire hydrants.

Sec. 8. Hydrants to be placed not less than 800 feet apart.

Sec. 10. Flushing excavations as well as sewers.

Sec. 11. Lower all mains below danger from freezing.

Sec. 12. Company to assume all liability as well as to hold city harmless.

Sec. 13. Hand opened and automatic closing fixtures does not pertain to fountains for man or beast.

Sec. 15. Except in cases of emergency the company shall not shut off water from mains or distribution pipes on Mondays or Saturdays.

Sec. 16. Additional mains to be built as per map on file and as reported by the water committee of the council dated August 14, 1917.

Sec. 18. City reserves the right to buy the plant at any time after the expiration of the first five years.

Sec. 21. Repealing clause.

BOARD OF CONTROL

The board of control to determine the rates as mentioned in the ordinance, is to be made up of the city council, city engineer, city attorney and representatives of the company.

After the payment of operating expenses, taxes and depreciation fixed by the board and a six per cent return on the agreed physical valuation, at least 55 per cent of the net revenue remaining shall be paid to the city.

Section 18 as originally submitted, gave the city the right to buy the plant at the end of five years or upon the expiration of each subsequent five-year period only. As revised, it would give the right to the city to buy the plant at any time after the expiration of the first five-year period.

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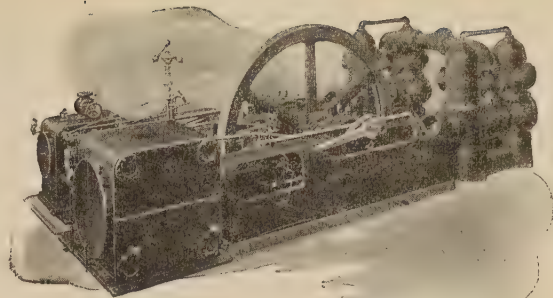
ALL the vital and interesting news relating to the government of the Empire State. Nearly 100 pages of breezy, illustrated articles.

¶ The Rev. Charles E. Snyder, minister of the First Unitarian Church of Sioux City, Iowa, writes: "It is nearly seventeen years since I was a youngster in Columbia county with a lively interest in New York politics. During all these years I have tried to keep in touch with state affairs back there and now comes STATE SERVICE with its wealth of news and reviews. It is decidedly a boon to me and I am heartily glad to have it. Its contributions to the study of state government are greatly worth while and it feeds a hungry place in the heart of one who still feels that New York is home."

¶ Mr. Snyder's letter undoubtedly fits hundreds of thousands of former New Yorkers residing in Iowa. It should appeal also to all men and women interested in New York. Address

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FOR SALE—A good sprinkling wagon, Auston make, at a reasonable price. G. A. Tegeler, Dyersville, Iowa. 419

BIDS WANTED—The city of Perry, Iowa, will receive bids until 8 o'clock p. m. February 15, 1918, for 160 K V A, 2 phase 60 cycle 220 volt A. C. generator, directly connected to engine. To be installed at the Perry Water Works. Specifications and profile of plant may be obtained at the office of the City Clerk, Perry, Iowa. Adrian Cross, City Clerk. 118

FOR SALE—One Ingersoll Rand duplex air compressor, in first class shape. Address Adrian Cross, City Clerk, Perry, Iowa. 118

FOR SALE—One Seagraves horse drawn hose wagon and fire harness, same as new, for sale at less than half price. Address, J. O. Gregg, city manager, Iowa Falls, Iowa.

FOR SALE—All brass Artesian well cylinder 5 3/4 x 36 inches with bronze ball valves and 300 feet of 3 1/2 inch Octegan selected ash wood rods fitted with dropped forge sucker rod couplings, suitable for pumping from deep well, using steam head or lever stroke. For particulars, address G. F. Taylor, city clerk, Stuart, Iowa.

FOR SALE—All brass Artesian well cylinder 3 1/4 in. x 48 in. with bronze ball valves and 350 ft. of 3 1/2 in. number 1 wood rods and couplings, suitable for pumping from a deep well using steam head or lever stroke. For particulars, address, G. F. Taylor, City Clerk, Stuart, Iowa. 107

FOR SALE—Having recently made arrangements with a power company to furnish electricity the town of Coggon has the following for sale. 1-28HP Bates & Edmonds double cylinder gasoline engine. 1-125 Volt 120 amp. continuous load D. C. generator, 1200 R M P. 1-55 volt 25 amp. continuous load D C generator, 1400 R M P. 1 fully equipped switch board. Everything in good condition. For information write F. W. Lindahl Town Clerk. 106

FOR SALE—Having recently made arrangements with a neighboring town to furnish electric current for lighting and power. The town of Shelby offers for sale a Gas Lighting Plant, complete in good running order will sell at a bargain, as the town has no use for it, address all communications to town clerk of Shelby, Iowa.

FOR SALE—The incorporated town of Milford has for sale 1 Davis carbide feed acetylene gas plant in perfect condition. Model B generator 75 pound capacity. 23 burners with fixturers. 150 feet 1/2 inch pipe. Will sell at a sacrifice. For information write J. E. Shelledy Clerk, Milford, Iowa.

FOR SALE—Having recently installed a water works system the town of Lowden offers for sale a chemical engine in good condition. For particulars write Richard Parr, Town Clerk, Lowden, Iowa. 116

WANTED—Second hand 10,000 to 16,000 gallon storage tank for gasoline. Lock box 235 Sheldon, Ia.

FOR SALE—85 pieces, 12 feet lengths, 16 inch cast iron pipe; 22 pieces about 21 feet length, 4 inch, extra heavy galvanized with couplings; 8 pieces about 20 feet lengths, 4 inch extra heavy galvanized without couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized with couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized without couplings; 150 feet, 6 inch black pipe; one 20 inch valve, hub end; one 16 inch valve, hub end; one 20 inch sleeve; one 20 inch x 20 inch x 16 inch T; eight 4 inch x 4 inch x 3 inch T, hub; twenty 4 inch valves threaded; ten 3 inch valves threaded; ten 4 inch crosses; ten 4 inch Ts; six 3 inch dresser couplings; thirty 4 inch dresser couplings; ten 4 inch saddles and double siraps; ten 4 inch to 3 inch galvanized extra heavy reducers; and eight Cook strainers No. 20. The above is all new and will be sold at a bargain. John I. Bell, commissioner, Marshalltown, Iowa. 917

FOR SALE—One Olson Standard Paving Brick Rattler, nearly new, Price \$75.00. This rattler has been used for about a mile of paving and is in good shape. If interested write P. H. Jones, Clerk, Manning, Iowa.

FOR SALE—The city of Colfax, Iowa, offers the following: Two National steam pumps capacity 500 gallon per minute equipped with Mason Regulators. Two boilers tested to carry 85 pound pressure. One Cameron pump 5 H. P. One National pump 5 H. P. This equipment is in good condition. Will sell all or part. If interested write for further particulars or call and inspect.—H. F. Cassidy, City Clerk.

FOR SALE—18 horse power Watrous fire engine, good as new, complete with 30 foot 4 inch suction hose, same being replaced by high pressure water system. Write or wire at once, for full particulars. Russell E. Whipple, chief, fire department. Lehigh, Iowa.

FOR SALE—Two 2-horse double 50-gallon tanks and one either 2-horse or hand drawn 100 gallon chemical fire engine. Champion make, and in good condition. Inquire Chief Kellogg, fire station No. 1 Sioux City.

FOR SALE—Bates & Edmonds 35 H. P. upright engine, gasoline or kerosene, 2 cylinder, all complete, in good shape. Have installed transmission line current and have no use for engine. Address Percy Lyon, Clerk, Dike, Iowa. 617

FOR SALE—Having completed arrangements with a neighboring city to furnish our electric current we offer the following at a bargain. One 25 horse power special electric Fairbanks Morse Engine. One 20 K. W. Peerless Generator. 60 Amp. hour battery and swith board instruments. Everything in good condition. Address Town Clerk, Hudson, Iowa

PAINTING—If you have water tower or anything in similar line you want painted, write W. O. Potter, Fredricksburg, Iowa

FOR SALE—Cities wanting or needing a milk laboratory apparatus can get a bargain by addressing, John Berwald, Mayor, Davenport, Iowa. 107

FOR SALE—A number of good gas meters. Will be sold at a bargain. W. D. Hanna, Clerk, Winfield, Iowa. 57

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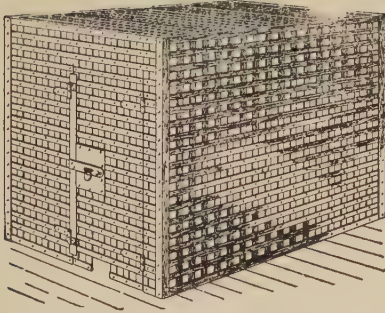
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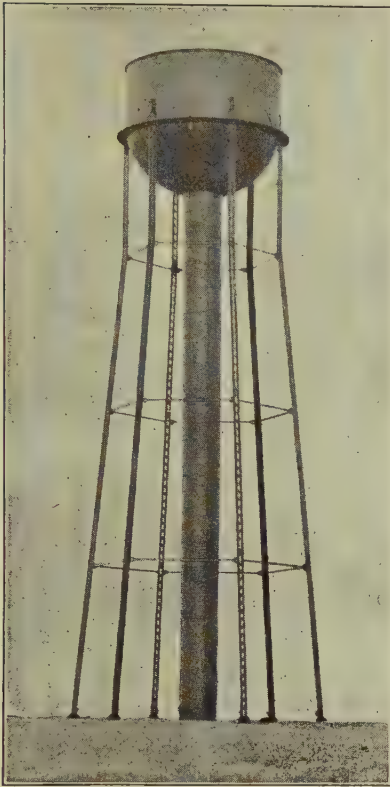
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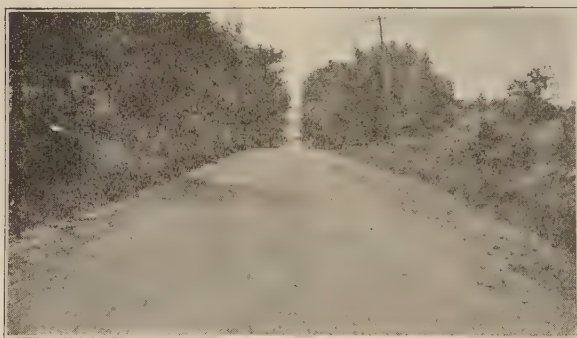
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American Municipalities

May, 1918

Vol. 35, No. 2

Entered as second class matter December 1, 1911 at the Postoffice at
Marshalltown, Iowa, under the Act of March 3, 1879.

Published by

Municipal Publishing Company

Marshalltown, Iowa

Frank G. Pierce, Editor

Subscription Price, \$1.00 per year

Advertising rates made known on application

TO MUNICIPAL OFFICIALS

Municipal officials receiving American Municipalities need have no fear of incurring financial obligations. If you are not a subscriber, either the municipality you represent is a member of one of the Leagues of Municipalities and you are entitled to a copy free, or the copy you receive is a sample copy.

Resolution Adopted by League of Iowa Municipalities

That without evasion or reservation, we do promise that our every word, act and deed shall be in support of our President, our Governor, our Sons and Brothers,—the Sons of the Republic—and their Allies across the sea who are fighting the battle of liberty and freedom, the battle of the weak against the strong, of right against wrong.

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COMMENT

Many new officials will receive this copy of American Municipalities and we want them to know that they are entitled to a copy on account of their city or town being a member of the League of Iowa Municipalities.

If these officials will read the different issues as received they will from time to time find items that will be of direct help to them in their work.

We want these new officials to make use of the Information Bureau of the League and believe that if they do that they will be well pleased with their League membership.

The article in this issue in regard to the new method of levying taxes should be carefully read by every municipal official as the tax levy this year must be made under this law.

If it is remembered that the levies must be made in dollars rather than in mills it will be easy to comply with the provisions.

Municipal officials should also take an interest in the primaries especially in so far as the candidates for the legislature are concerned.

If the cities and towns are to secure the legislation they need men must be elected to the legislature who are informed on municipal affairs and who believe in the people.

The average member of the legislature seems afraid to trust the people even after the people have shown their good judgment in electing him to office.

If a candidate wants you to trust him enough to vote for him insist on him trusting you.

He will be willing to grant the cities and towns the powers they so greatly need if he trusts you and you should insist on this trust before you vote for him.

Better get busy pretty soon with your municipal housecleaning.

Clean out the rubbish, garbage and manure and you will have a better town in which to live.

Health is the most valuable thing in the world and if you improve the health of your people you are doing them the greatest service you can do.

A clean town means better health.

CHECK UP YOUR UTILITIES

Most of the municipal utilities can be put on a better basis by giving particular attention to the business side at this time. If you have plenty of water start a campaign for more water uses. If you have a surplus of electric current canvass your people for new consumers. A private company is constantly working for bigger business and municipal utilities should do the same. Advertise the advantages of your different services and secure the greatest possible amount of business you can handle. Some of your men will not be busy this year and they should be used in this campaign for bigger business and bigger profits.

MEMBERS OF THE LEGISLATURE

Municipal officials should carefully investigate the past record and present business affiliations of every candidate for the legislature and support those candidates at the primary who are inclined to favor the interests of the people rather than the interests of the corporations.

Before a man is nominated or elected he is usually willing to express himself on public questions and will usually agree to favor the people and such an agreement should be secured. By some strange working of the brain cells, a man, after he is once elected to the legislature, becomes imbued with the idea that he, on account of such election, has become possessed with all knowledge and looks with suspicion on any advice offered by his constituents. You will not get as much satisfaction after election as you can get now so you had better get his promise now to favor the bills suggested by the Legislative Committee of the League in the interest of the cities and towns.

Enquire among his associates and find out if he has any business affiliations with the different utility corporations. Special care should be taken in this regard if the candidate is a lawyer or a banker. If he is closely affiliated with the corporations you will be doing the state a service if you support someone else.

It is of the greatest importance that members of the legislature should be friendly to the municipalities of the state. Because a man is a farmer is no reason in itself for not supporting him because many of the farmer members of the past legislatures have been the best friends the municipalities have had.

Do not think that this is not important

because it is of the greatest importance and the best time to look after it is before the primaries. Make it your business to help elect the right kind of a legislature.

DANGER IN UNBALANCED BID

The Merriam Commission reported to the Chicago city council on August 5, regarding the operations of Contractor McGovern whereby he received excessive compensation from the city in certain paving contracts made in 1908 and 1909. McGovern, it will be remembered, is the contractor indicted for the "shale rock" fraud on the Chicago sewer work, and cleared when the case came to trial.

In its report on the paving contracts which the city gave to McGovern in 1908 and 1909 the Merriam Commission deals with the 1-cent bid made by McGovern and declares he was paid \$413,247.64 for work which should have been done for \$266,064.54.

The acceptance of this unbalanced bid, and the extension of the contract to about eight times the quantity of work named in the original schedule resulted in the loss to the city of a large sum of money. The contractor was paid \$413,247, while, if the proposal of the Western Construction and Maintenance Company, which was the next lowest to the McGovern bid, had been accepted, the amount paid for the same work would have been only \$266,064. In other words, the city would have saved \$147,183 on the contract.

Comparison of cost of the work done under the McGovern contract with what it would have been at the prices of other bidders shows:

Item	Amount	Contract Prices		Other Bidders	
		Unit	Total	Unit	Total
Repairs, class A, square yards.....	229,981	\$1.75	\$402,309.25	\$1.04	\$239,006.64
Repairs, class B, square yards.....	12,064	.01	120.64	1.40	16,889.60
Cement concrete, cubic yards.....	643	3.25	2,089.75	5.00	3,215.00
Binder delivered, tons.....	2,182	4.00	8,728.00	3.15	6,873.30
Total.....			\$413,247.64		\$266,064.54

The report in explaining the 1-cent bid points out that work referred to as "Class A" consisted of resurfacing, while work referred to as "Class B" consisted of putting in concrete and binder as well as resurfacing. McGovern bid \$1.75 a square yard on the ordinary resurfacing work and bid 1 cent a square yard for putting in concrete and binder and doing the resurfacing.—Municipal Engineering.

The Chicken Question

Two Kinds of Chicken Trouble Municipal Officials

The chickens of our cities and towns are being given a great deal of consideration this spring by officials. The chicken question is always an interesting one, but on account of the war activities of the nation at large, and of the individual citizens, it becomes of most vital interest just at this time.

A discussion of this question naturally falls under two heads. First, the chickens of the fowl variety, and second, the chickens of the human variety.

With the request of the food administration that every loyal resident of a city or town maintain a war garden, the barn yard variety of chicken, if allowed to run at large, becomes, in addition to the nuisance that it always has been, a real aid to the Kaiser by destroying great quantities of food that are necessary to the maintenance of our people. It is vital to the success of the war garden to know whether or not this kind of a chicken can be restrained.

About once a month some citizen of the state, who has heard someone else say that the law allows chickens to run at large, publishes an article in some local paper stating that this is the law, and that it is necessary if you do not care to be bothered with chickens to fence against them. The last item of kind to be published is sent in from Lohrville, and reads as follows:

To the Editor: Chickens are going to be quite a help this year in winning the war by "doing their bit" with eggs. There are always "cranks" who shout their heads off if a neighbor's chickens trespass on their ground which is often by accident and more trouble is caused between neighbors on this account than by any other cause.

At this time it would be wise to state that the Supreme Court of Iowa has ruled that property owners must fence in their property if they want to prevent chickens and dogs, etc., from trespassing. And when the offending party adjoins property, either party can erect a fence the cost to be assessed equally.

So that it is the duty of Mr. Crank to fence his property if he wants to prevent his neighbor's chickens from trespassing.

I. H. FERGUSON.

Mr. Ferguson is probably a warm friend of the barn yard chicken, and was probably told by someone that the Supreme Courts had held that chickens can run at large within the city and town limits. Unfortunately Mr. Ferguson did not take the trouble to verify the information that he had received or to read the opinion of the Supreme Court. If he had read the opinion of the Court to which he refers, he would have found that the Supreme Courts differs with him as to the law of chickens.

The opinion of the Supreme Court to which he must refer, as this is the only opinion of the Court on this question, is without doubt the case of Kimple vs. Schafer reported in the 161 Iowa page 659. In this opinion the Supreme Court says that the rule of common law requiring the owner to keep and restrain domestic animals on his own property does not apply to the people of the state of Iowa. The legislature may, however, change this rule. The legislature has changed this rule in regard to a great many domestic animals, but has never changed the rule in regard to chickens.

The law in this case is, therefore, that chickens are allowed to run at large in the country, as distinguished from towns and cities. In this same opinion, however, the Supreme Court calls attention to the fact that under section 702 of the Code, the legislature has given to cities and towns the power to restrain the running at large of all kinds of live stock including chickens and different kinds of fowl. Under this section a city or town has the right to pass an ordinance prohibiting the running at large of chickens and this ordinance can be enforced. The Supreme Court has said that this is the law and until they change their minds it is the law. The next time that anyone claims that the Supreme Court has said that chickens can run at large anywhere in

the state call his attention to this case and ask him to read the entire opinion. He will certainly be convinced that a city or town has the right to restrain chickens of the fowl variety. If you do not have such an ordinance, you should pass one, more especially at this time in order to protect the war garden. An ordinance of this kind is a good ordinance to have at any time. It is of the greatest importance at this time.

There is another kind of chicken that has recently been given considerable attention in the state, especially by the city of Des Moines, by state officials and by the State Board of Health. This is a human chicken of easy virtue that is attracted by the uniform of the United States Soldier, and at the same time is not as careful of its health as the rules of hygiene demand. The army and war department has decided, after thorough investigation, that this kind of chicken is of more danger to the Soldiers of the United States than are all the troops of the Kaiser. What the teaching of morality has been unable to do in a thousand years, and war has been able to do in one year.

At the request of the war department the State Board of Health of Iowa has passed a rule prohibiting these chickens from running at large in the state. It is made the duty of physicians, druggists, the police and all others having any information on the subject and knowing of a chicken of this kind running at large, to report the same to the proper officials in order that such chicken may be restrained.

Municipal officials should get busy and restrain every chicken of every kind that is apt to be a menace either to the war garden of the people or to the Soldiers of the United States.

COST OF TRANSMISSION LINE

Municipal officials especially in the smaller towns are interested in the cost of building a transmission line. Recent figures coming to our attention gives the cost of such line at \$312.09 a mile. The itemized figures are given below and if they are incorrect we will be glad to receive the correct figures. If you have built a transmission line what are your cost figures?

COST OF BUILDING FIVE MILES OF ELECTRIC LIGHT

TRANSMISSION LINE

174 poles, No. 1 treated, 6"x25', each \$2.75	\$ 478.50
10 poles 6"x30', \$5.20 each	52.00

192 cross arms, 3¼"x4¼"x3', Oregon fir,	
per 100, \$34.97	52.00
2 cross arms, 3¼"x4¼"x5', Oregon fir,	
per 100, \$57.50	1.15
398 Locust pins, 1½"x8", per M, \$29.50	10.22
398 Porcelain insulators, per M, \$67.41	26.82
194 galv. mach. bolts ⅝"x10" per 100,	
\$12.62	24.48
388 galv. washers, 2¼"x2¼"x⅝", per	
100, \$1.35	5.23
194 braces 3-16"x1"x20", per M, \$82.25	15.95
194 lag bolts ½"x4", per 100, \$4.41	8.55
194 carriage bolts ¾"x4", per 100, \$2.72	5.27
24 anchor rods ½"x6", per 100, \$43.75	10.50
24 anchors, 6", each 75c	18.00
600 galv. Guy wire, twisted, ¼", per 100,	
\$1.54	9.54
5,900 lb. No. 6, E. B. B. Iron wire, 8½ c lb,	
10% dis.	451.35
Setting poles, 5 miles, wages \$3.50 per day	87.50
Installing cross arms, wages \$3.50 per day	55.00
Stringing two wires, wages \$3.50 per day	61.25
Foreman, 12 days, wages \$6.00 per day	72.00
Hauling wire and other material	50.00
Freight	50.00
Total	\$1,560.45
Cost per mile	\$312.09.

BITULITHIC PAVEMENT POPULAR IN NEWBURG, N. Y.

Warren Brothers of Boston, did such a good job in the paving of Broadway between Liberty and West streets that there is a general satisfaction over the award to them of the contract for repaving South Liberty street. Bitulithic has given excellent service in Broadway and will provide a fine pavement for the thoroughfare leading to the Heights. A consideration gratifying to taxpayers is the reduced cost of the pavement compared with the figures submitted for brick and other materials. During the first year or so of bitulithic in Broadway there was complaint of its slipperiness when wet. Drivers had to learn to be careful when the streets were wet, as they must be careful in going over any kind of paving when wet. Nowadays few accidents occur from slipping horses or skidding of automobiles and those involved are generally strangers, going faster than they ought to. The dangerous condition of pavements is only temporary. The streets dry sufficiently for safe driving within a very short time after a rain ceases. For every-day traffic, bitulithic, while a comparatively smooth pavement, affords a good foothold, being similar to macadam in this respect.

New Method of Tax Levy

New Law Now in Force Relating to Levying Taxes

The officials and councilmen of every city and town in the state should study the law in relation to tax levies, passed by the last legislature, and carefully comply with its provisions in making the levies this year. In a general way the levy is, under this new law, made in dollars rather than in mills as heretofore. The proposition to change the system of levying taxes was first suggested by Governor Harding in an inaugural address. Governor Harding said:

"There is a defect in our present system of taxation through which an increase of valuation has resulted in putting into the public treasury millions of dollars not contemplated by the levies which produced the money.

"No dollar of money can be raised by taxation in this state without your express permission and authority. You are responsible, therefore, for the total expenditure in the state, and I recommend such change in our laws in this respect as shall insure that no permission to raise money by taxation shall be given, by the legislature, to any governmental agency until the legislature shall have before it in dollars and cents the total amount of proposed and necessary expenditure to be made by such agencies. The rate of levy should be gauged by that estimate, and be required to be made upon a valuation then fixed."

The law in full is as follows:

CHAPTER 343

TAXATION

Section 1. Rate of taxation—adjusted taxable value. That hereafter in all taxing districts in the state, including townships, school districts, cities and towns and counties, when by law then existing the people are authorized to determine by vote, or officers are authorized to estimate or determine, a rate of taxation required for any public purpose, such rate shall in all cases be estimated and based upon the adjusted taxable valuation of such taxing district for the preceding calendar year.

Section 2. Amounts certified in dollars, not

by rate. That when any authorized tax rate within any taxing district of the state, including townships, school districts, cities and towns and counties, shall have been thus determined as provided by law, the officer or officers charged with the duty of certifying said authorized rate to the county auditor or board of supervisors shall, before certifying the same, compute upon the adjusted taxable valuation of such taxing district for the preceding calendar year (not including moneys and credits and other moneyed capital taxed at a flat rate, as provided in section thirteen hundred ten (1310), supplement to the code, 1913), the amount of tax said rate will raise, stated in dollars, and shall certify said computed amount in dollars, and not by rate, to the county auditor and board of supervisors.

Section 3. Computation of rate. When the valuations for the several taxing districts shall be adjusted by the several boards, as provided by law, for the current year, the county auditor shall thereupon compute and spread upon the records such a rate, not exceeding the rate authorized by law, on said adjusted taxable valuations for the current year (not including moneys and credits and other moneyed capital taxed at a flat rate, as provided in section thirteen hundred ten (1310), supplement to the code, 1913), as shall raise the amount required for each taxing district within the county, as heretofore determined under the provisions of this act, and no larger amount; provided, however, that if in adjusting the rate to be levied in any taxing district to conform to this act, such rate shall make necessary the levying of a fraction of a mill in excess of one-half of one-tenth of a mill, said fractional excess may be computed as one-tenth of a mill, which latter shall be the smallest required to be spread upon the tax lists for any purpose except rates applicable to state purpose, provided, however, that nothing herein shall be construed as interfering with the right of any taxing district to receive its due proportion of the taxes on moneys and

credits and other moneyed capital taxed at a flat rate as provided in section thirteen hundred ten (1310) supplement to the code, 1913.

Section 4. Record of rates. On the determination by the auditor of the necessary rates as herein directed, it is made his duty to enter a record of such rates for each taxing district upon the permanent records of this office in a book to be kept for that purpose.

Section 5. Excessive tax—penalty. It is hereby made a misdemeanor for the board of supervisors to authorize, or the county auditor to carry upon the tax lists for any year, an amount of tax for any public purpose in excess of the amount certified or authorized as provided by this act.

Section 6. Conflicting acts—mandatory provisions. All acts and parts of acts, if any, in conflict with the provisions of this act, are hereby amended so as to conform to the requirements hereof, and the provisions of this act, and the methods of computation, certification and levy herein provided, shall be obligatory on all officers within the several counties of the state upon whom develops the duty of determining, certifying and levying taxes after the taking effect of this act.

Section 7. Instructions. It is hereby made the duty of the secretary of the executive council at once, in the passage of this act, to send to each county auditor in the state a copy thereof with instructions explaining the operation of said act, and each county auditor shall send to the taxing officers in his county a copy of such instructions explaining the operation of said act, and in case any taxing body in any county shall have made its levy and certificate to the board of supervisors before receiving such instructions, it is hereby authorized to correct the same to comply with this act.

Section 8. Time act becomes effective. The provisions of this act shall become effective on January 1, 1918.

Approved April 24, A. D., 1917.

The first of this year the secretary of the executive council mailed to all county auditors a circular explaining the provisions of the law. This circular in part is as follows:

I am enclosing herewith copy of Chapter 343, Acts of the Thirty-Seventh General Assembly, relating to the question of taxation, particularly with reference to the method of estimating and determining the rate of tax required to be levied

for any purpose authorized by law, fixing the period on which such rate shall be computed and the establishment of a dollar basis of levy as a substitute for the rate method to be certified by county auditors to taxing bodies.

You will note under Section 7 of this Chapter that it was made the duty of the secretary of the executive council to forward a copy of the act to each county auditor in the state with instructions as to its operation, while the same section makes it the duty of each county auditor to send to the taxing officers in his county a copy of such instructions and that in case any taxing body in any county shall have made its levy and certificate to the board of supervisors before receiving such instructions, it is authorized under the act to correct the levy to comply with the requirements of the act, the provisions of which were made effective January 1, 1918.

Under a strict interpretation of this section, I presume that the instructions and copies provided for should have been sent out some months ago immediately upon the passage of the act, but inasmuch as it had not been done when I assumed this office on May 1, 1917, and the fact that the printed copies of the Acts of the Thirty-seventh General Assembly were not available for some months after that date an unavoidable delay resulted. However, the tardiness in transmission will work no hardship, as the act only becomes effective at this time and as you have had a copy of the law at hand and are no doubt as familiar as I am with the provisions of this act and their application, this letter will merely serve to call your attention again to the date on which it becomes operative and the necessity of making the change in methods contemplated by the legislature.

Under Section 1, it is required that the rate of taxation fixed for any public purpose shall in all cases be estimated and based upon the adjusted taxable valuation for the preceding calendar year, in the district in which the levy is made, and Section 2 provides, that in certifying such levy to any taxing body, the officers charged with the duty of certifying such levy or rate, compute upon the adjusted taxable valuation of the district for the preceding calendar year, excluding moneys and credits and other moneyed capital taxed at a flat rate, and certify the computed amount in dollars to the county auditor and board

of supervisors. Section 3 makes it the duty of the county auditor, after the valuations for the various taxing districts have been computed and reported, to compute and spread upon the records such a rate, levied on the adjusted taxable valuations for the year, excluding moneys and credits and other moneyed capital taxed at a flat rate, as will raise the amount required for each taxing district for the evident purpose of uniformity. This section also provides that where a fractional mill levy exceeds one-half of one-tenth of a mill it should be recorded as one-tenth and that no fraction smaller than one-tenth shall be required to be spread upon the records for any purpose other than a state levy.

If you have any doubt as to the interpretation of any point in this act and will communicate with me, I shall be glad to take the matter up with the attorney general's office for a clear definition of its meaning.

R. E. BALES,

Secretary Executive Council.

In order to secure the interpretation of the law from the member who drew it up and secured its passage, Hon. J. B. Weaver, member of the house from Polk county, was asked to give his explanation of the law. In answer to an enquiry, Mr. Weaver writes as follows:

Yours at hand referring to the changes in the tax law made by Chapter 343 of the laws of the Thirty-seventh General Assembly, which became operative January 1, 1918.

This bill had its origin in certain suggestions of Mr. A. H. Davison, then secretary of the executive council, who has had long experience in tax problems, and was designed to accomplish two main purposes:

First. To enable the public to know just how much money was being raised for each purpose permitted by law, by requiring that the amount be certified by the taxing body to the county auditor in dollars instead of by rate. The public would thus be able to compare the amounts from year to year and have definite information of the number of dollars being spent in the various funds. This method of certifying in dollars already obtains with school boards and is the only correct method.

Second. To prevent the various funds to be raised by taxation being increased by an increase in the taxable valuation of the taxing

district after the levies were made. To avoid this, all amounts to be raised by taxation are to be computed on the adjusted taxable valuation for the preceding calendar year, and certified to the county auditor in dollars. When the values are adjusted for the current year, the county auditor computes on the same, the rate required to raise the number of dollars theretofore certified to him.

A few years ago after the various taxing bodies had certified to the county auditors the rates of taxation all over the state, the assessors and the county and state boards of equalization raised the values enormously in many counties of the state. It thus resulted that the tax levies theretofore certified when applied to such increased valuations raised in many cases twice as much money as was expected and intended, but once the money was collected, of course, it was generally spent. It is chiefly to prevent this result that the law was enacted.

This law puts on the various taxing bodies the responsibility of—

First. Learning what the taxable valuation is of their taxing district for the preceding calendar year as fully adjusted the previous September.

“Second. Then to determine what rate of levy (not exceeding the rate fixed by statute) they deem it necessary to levy on such valuation for each specific purpose.

Third. Then to compute in dollars the amount such rate of levy will produce when applied to said valuation and certify such amount in dollars to the county auditor. He will do the rest.

The practice heretofore of taxing bodies certifying this and that rate of taxes to the county auditors without knowing or telling the public how many dollars would be produced by such rates, was and is wasteful and tends to destroy a sense of responsibility in the taxing officers. Besides no such officer could know definitely how much money would in fact be raised by such rates because the valuations were always changed by the various adjusting boards, and when the rates certified were applied to the changed valuations more money was always collected than any board could have contemplated. These are the evils the new law was drawn to correct and while there may be some confusion at first, the law will when once understood and applied, accomplish two great results:

(a) Require taxing bodies to know and announce just how much money they are raising for each purpose.

(b) Prevent more being raised for such purpose than has been thus determined, no matter how much the taxable valuations may be increased after the local taxing body has acted.

I may say that the new law does not interfere with the rate of levy fixed by state law on moneys and credits or other capital taxed at a flat rate.

I should say further that it is made the duty of the secretary of the executive council to send to the county auditors and the latter to the various taxing bodies, full instructions as to how to proceed under this new law, and any taxing bodies desiring further information should make inquiry accordingly and the secretary of the executive council will, with the attorney general, give all needed instructions. To avoid any possible conflict of construction, this course should be followed.

I am sure the law, when fully understood and applied, will prove of great economic value. If it had been in operation a few years ago when the great raise in valuations was made by the executive council, it would have saved the people of Iowa millions of dollars. It will do the same in the future.

Yours very truly,

J. B. Weaver.

The question as to what effect this law would have on taxes already levied on the millage basis for a number of years, has been raised in several cities and to get a general ruling an enquiry was mailed to the secretary of the executive council with the request that he consult the attorney general and give a ruling. Hon. R. E. Bales, the secretary of the executive council, in answer to this enquiry, writes as follows:

Referring to your letter of inquiry of March 28, with reference to the interpretation of Chapter 343, Acts of the Thirty-seventh General Assembly, particularly with reference to municipal levies extending over a period of years, beg to inform you that I have had this matter up at some length in a personal conference with Mr. J. W. Sandusky, First Assistant to Attorney General Havner. Mr. Sandusky was of the opinion that the change in formula would work

no hardship nor difficulty in this respect, for the reason that the long time levy is made for the purpose of returning a certain number of dollars each year. He holds that Section 2 of the Act covers this point fully and suggests that the only thing necessary for the municipal assessing board to do is to compute the levy as required by this section upon the adjusted taxable valuation of the district for the preceding calendar year not including moneys and credits and other moneyed capital taxed at a flat rate and find the amount of tax that the levy will raise in dollars and cents and certify this amount with the other taxes to the county auditor or the board of supervisors. This seems clear to me and I hope that I have been able to make it clear to you.

I believe it to be of the utmost importance that all taxing officials understand the law fully and I am perfectly willing to make any investigations necessary or go to any amount of trouble to obtain an exact interpretation which will leave no doubt of its meaning.

Very truly yours,

R. E. BALES, Sec.

It would seem from the above letter that Mr. Bales is willing to assist the cities and towns in arriving at a correct interpretation of the law and it might be well to write Mr. Bales direct if there is any particular section or provision of the law that is not entirely clear. In this way the different provisions will be interpreted the same in all parts of the state.

Municipal officials should appreciate that this law is considered a great step in advance in municipal finance by most students of municipal affairs and they should carry out its provisions in good faith.

The twentieth anniversary of the firm of Burns & McDonnell, Consulting Engineers of Kansas City, Missouri, was celebrated April 1st. Besides the original members of the firm, C. S. Burns and R. E. McDonnell, they have associated with them as members of the firm, Captain C. A. Smith, R. L. Baldwin, L. B. Reynolds and C. F. Lambert. The firm will continue to specialize in municipal engineering and appraisal work. Captain C. A. Smith is now with the Sanitary Corps of the National Army.

New Ft. Madison Water Works

Complete Reconstruction of Water Works Plant on Old Site Without Interruption of Service



Pump station and coal storage on right. Settling basin, filter house and head house on left

The building of a new water works plant on the exact site of an old plant, and entirely removing every vestige of material and equipment of the old plant and replacing it with new, and without interruption of service, calls for an unusually close study of the engineering features and a careful handling of the construction work and material. It is not an unusual thing to replace an old steel bridge with a new one without interfering with traffic, but in bridge work you at least have a few minutes between trains, while in supplying a community of fifteen thousand people with continuous water service, a single interruption, even for a minute, not only

jeopardizes the property of the city, but the safety of the citizens as well.

Many municipalities and water companies hesitate about carrying out improvements because of the fear of interruption of service and criticism that this interruption might bring. However, in the case of the Ft. Madison, Iowa, water works, criticism had already reached an alarming stage because of the quality of the water and insufficiency of the fire pressure, and it became incumbent upon the city to provide a more satisfactory water and a better fire service. The city was without bond power for a municipal plant, consequently twenty-five of the leading citizens or-

ganized the "Citizens Corporation" which was granted a franchise, and they immediately took over the old property and began the reconstruction of the entire water works plant involving an expenditure of about three hundred thousand dollars.

The criticism and suspicion arising from the operation of the old plant was a lesson which caused the new corporation to exert every effort to avoid the errors of the past and to rescue, if possible, an unprofitable business and to adopt measures of economy and efficiency that would make the new project profitable. The Consulting Engineers in preparing the plans and specifications for machinery and equipment for the pumping plant, power plant and filtration system kept in mind the previous unprofitable business and exerted extra efforts in providing for equipment that would not only give the very best of service but to do this at a minimum of expense.

The building of a water works installation upon an entirely new site with new water supply, is a simple task compared to a complete reconstruction of a plant. The old station like many of the early-day water works plants, contained pumping machinery that was obsolete, a power plant that was merely a fuel consumer, with no check on the wastage of water, and with frequent changes of ownership and management, a sorry condition existed. The old station contained two high service pumps, but a close examination disclosed the fact that only one was in condition to be operated. The old brick building was torn down around the old pumps and boilers, all equipment was covered with canvas and excavation started for the new structure. Unfortunately, it was impossible to select weather suitable for the work, and practically the entire construction work was carried on throughout severe winter weather. In making the excavation for the new structure it was necessary to take up the old discharge lines from the pumping plant, replacing them with temporary connections.

The first work started and completed was a million-gallon re-inforced concrete storage reservoir, thus enabling some storage of water in case of interruptions in operation of the pumping equipment.

One old boiler was disconnected and displaced; foundations were built and the new boiler was then erected and put in commission. Then the second old boiler was removed, founda-

tions were built for the second boiler which was then connected and enclosed in new steel casing.

A temporary smoke stack was built from old corrugated iron culverts and supported above the boilers by a frame of structural steel taken from the old building. The temporary stack was supported by guy wires placed at such height as not to interfere later with the placing of roof trusses and other building operations. A complete new stack was erected and as soon as the new boilers were placed the new breeching was put in place and connected to the new stack. During the time these changes were being made the building was also being constructed and firemen, engineers and operators had to be protected by canvas covers stretched over framework over the boilers and pumps, but in spite of the severe winter weather this work was carried on without interruption.

In the pump room a new concrete foundation was erected and the new pump was set in place. New steam connections were made at once and the old pump was removed by dynamite; the old pump having seen some thirty-two years of service and having been welded together twice to keep it running, it was not considered valuable enough to save. Fortunately, the new pump had all of its connections completed and was just ready to be placed in service when suddenly the old pump gave up its struggle after thirty-two years of existence and practically went to pieces like the Wonderful One-Horse Shay—"all at once and nothing first, just as bubbles do when they burst". Steam was turned into the new pump and immediately after the collapse of the old pump and continuous service was maintained with scarcely an interruption except for a few minutes for adjustments to the new pump.

The high service pump is a three-million gallon Corliss Fly-wheel, and owing to its high efficiency this unit is kept in operation continuously, and using for emergency a three-million gallon duplex pump whose efficiency is less and the first cost investment of which is less. Themlow service pumps are motor driven and are in duplicate, consisting of two (2) three-million gallon units, delivering water from the intake in the Mississippi river into concrete lined settling basins from which the water flows through four (4) three-quarter-million gallon capacity

mechanical filter units. Duplicate generating units generate the electricity for the operation of the low service pumps; also furnish power for the operation of the blower and wash water pump used in the filter house, besides furnishing electricity for lighting the entire water works installation and grounds.

The power plant of any water works installation can be a money-maker or a money-loser, depending upon its efficiency; and in this installation equipment was provided to secure the

arranged as to tell at a glance the record day by day or from year to year, as to the amount of coal consumed, amount of water evaporated, amount of water pumped and the fuel cost per thousand gallons. If the record of a fireman one month is not as good as a previous month, merely a glance will determine this and a good excuse must be forth-coming by the superintendent; otherwise a new fireman takes the job.

A new intake was also built into the Mississippi river, this being necessary because



Interior of pump room showing high service Corliss Engines

highest efficiency. All the coal is weighed on permanent scales, and the boiler feed water is weighed with automatic recording devices that determine the amount of water evaporated for the amount of coal used, and a constant check is obtained at all times on the amount of steam that is produced by a given amount of coal, and the ability and industriousness of each fireman is readily ascertained by these records which are so

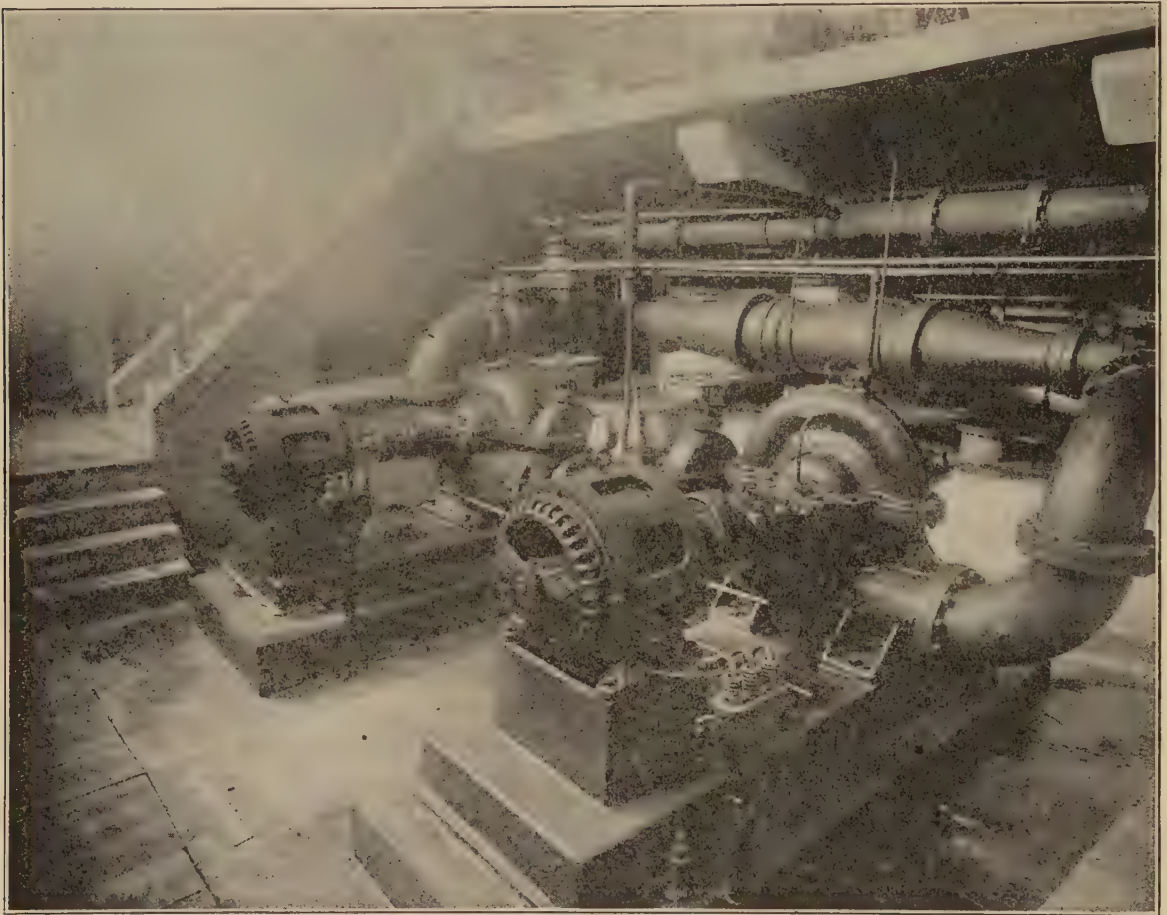
the building of the Keokuk dam had raised the level of the water in the Mississippi river at Fort Madison about fifteen feet and it was desirable to have the new intake placed considerably above the bottom of the river bed in order to avoid the accumulating sediment.

All the water is metered in passing from the low service pumps to the filtration system. This is essential because centrifugal pumps constantly

pumping water containing sediment lose their efficiency and a constant check was desired in order to determine when and how often new impellers should be placed in the low service pumps.

As a further check on the wastage of water, all water is metered in passing from the high service pump to the storage reservoir and into the mains. This double check on both high service and low service delivery enables a prompt determination of where any leakage occurs and prompt measurements can be taken in order to

chemical machines. The dry feed machines avoid the trouble of mixing with chemical solution tanks and the trouble with agitators in the solution tanks. The sulphate of alumina is fed in pulverized form, going into solution in the mixing chambers. Car load capacity storage for chemicals is provided on the third floor of the filter house. With the storage and dry feed machines as provided, the plant is free from disagreeable odors that are not unusual around a water purification plant. The concrete settling



Two three-million gallon low service pumps delivering water to settling basins and filters

account for all the water delivered. A universal meter system is being adopted throughout the twenty-miles of cast iron distributing mains, in the belief that the only business-like way of selling water or any other commodity is by absolute measurement of the volume.

The purification plant consists of re-inforced concrete settling basins, a large mixing chamber into which the coagulant is fed with dry feed

basin was built on a fill placed there by deposit of the creek which had its course around the ground, and information shows that a sawdust mill once operated on the site fifty years ago, and this sawdust did not prove, upon sounding, to be a very satisfactory foundation. The settling basin was therefore placed on a large re-inforced concrete slab, the re-inforcing consisting of seventy-five tons of old steel rails. The basin

has been in place about a year and measurements show that the settlement has been less than one-eighth of an inch.

The water flows by gravity from the settling basin into four (4) three-quarter-million gallon filter units which were installed by the Pittsburgh Filter Manufacturing Company of Pittsburgh, Pennsylvania. The filters are arranged all in one row in a large well lighted room. The filter gallery beneath the filter floor has all of its pipes and valves accessible with plenty of head room and working space with all piping arranged on one side only, which is thought to be a decided improvement in the arrangement of filter piping.

The general construction being of a complicated nature, involving unforeseen conditions, was handled on a cost plus percentage basis by the Wodrich Construction Company of Minneapolis, which plan of handling the work proved very satisfactory.

The pumping machinery and steam power plant equipment was furnished and erected by the Merkle Machinery Company of Kansas City, Missouri, and much of their erection was handled on a cost plus percentage basis.

The filter equipment was handled in a third contract by the Pittsburgh Filter Manufacturing Company, and recent tests of the water by the State Chemist of Iowa show a reduction of bacteria of 99¾ per cent; the raw water containing 1600 bacteria per c. c., and the filtered water only 4 bacteria per c. c. Another series of tests which are very important are the tests for colon bacillus. Three separate and distinct tests have recently been made by the State Chemist and no trace of harmful bacteria or disease germs can be found in the water. The only chemical coagulant now used is sulphate of alumina and the results are so satisfactory from a health standpoint, and also the securing of a pure sparkling water that the domestic consumption owing to the pure water, has rapidly increased since the new plant was placed in operation about six months ago. Hundreds of new consumers are being added and the citizens are realizing that with mechanical filtration and the further precaution of liquid chlorine application, an absolutely safe water is furnished at all times.

The distribution system has seven miles added to the old system, and by the use of existing gate valves these extensions were added and

connections made with but slight interference in various parts of the residential district. Larger re-inforcing mains were laid in the business district and a duplicate supply line reaches from the main pumping plant to the business district of the city. The construction of the distribution system as handled by Stephen Schults of Fort Madison shows that it is possible to lay water mains and put them in service almost as fast as they are laid, for the corporation was desirous of securing revenue as each block of extensions was completed, and with the plentiful use of gate valves and the prompt making of house connections while trenches were uncovered, this was made possible.

The entire engineering work, such as plans, specifications and supervision of construction was handled by Burns & McDonnell, consulting engineers, of Kansas City, Missouri, and their supervising engineer, Mr. C. E. Painter, has remained in charge of the operation of the plant.

The entire installation because of its displacing entirely an old and inadequate system, and also because of its being the most modern installation in the state of Iowa, has proven of special interest to officials of many municipalities throughout the country—delegations from many other cities having visited and inspected the installation.

The financing and management of the entire project was accomplished by home capital under the leadership and direction of Mr. T. T. Hitch, president of the Citizens Corporation, with the able assistance of Mr. Peter Kern, secretary.

Hundreds of water plants throughout the country could profitably carry out similar reconstruction, but unfortunately many owners and operators of water plants, both private and municipal, lack the essential quality of nerve to scrap an old plant when it becomes obsolete.

CREDIT TO WHOM CREDIT IS DUE

In the April issue of American Municipalities we published a paper by Senator George T. Thompson of New York advocating the abolishment of the Public Service Commission in that state. This paper was republished from the State Service Magazine of Albany New York and by the fault of the printer credit was not given for the same. The State Service Magazine deals with the state affairs of New York and is one of the best exchanges we receive.

Valuation of Real Estate in Davenport

By W. T. Waterman before the Contemporary Club of Davenport

The burden of taxation in the city of Davenport is increasing steadily year by year. Not only will there be increased taxation due directly or indirectly to the present World Wide War but there is an ever increasing demand that our city government take over new duties, new functions, new responsibilities, some of which have heretofore been undertaken by the individual.

Our educational budget now forms a very considerable part of our taxes and its scope is constantly widening. Our schools, in addition to what might be termed the regular course of study, are now offering special courses along many varied lines.

The public are now demanding larger, more beautiful, and better equipped parks, better paved and better lighted streets, more modern equipment for fire protection, a wider service by our police force, and larger expenditures for purposes of sanitation, all of which have their effect directly on our tax levy.

Certain of our citizens are not content with throwing the responsibility of the education of their children on the public and are now insisting that the community take over, care for, and entertain their offspring even during their leisure hours.

The fact remains that there has been in the past and in all probability there will be in the future ever increasing amounts raised by general taxation.

Inasmuch as personal property is, for purposes of taxation, as elusive as the will-o'-the-wisp, the burden of our taxes has fallen and will in the future fall on real estate.

Possibly reference to the following table will give some idea of the increase in the amount raised by taxation in the city of Davenport:

STATEMENT OF AMOUNT OF TAXES COLLECTED IN THE CITY OF DAVENPORT			
Year	Rate of Tax Mills	Amount of General City Taxes Collected	Amount of Special Taxes Collected
1902	15½	\$260,837.55	\$104,533.53
1903	9¼	160,953.14	146,429.21
1904	13¾	245,894.64	130,975.64

1905	14	270,532.70	180,175.57
1906	16	317,591.33	212,925.77
1907	15½	329,699.03	306,432.77
1908	18	339,090.94	199,252.04
1909	18	415,152.90	207,291.08
1910	18	419,904.96	180,429.02
1911	18	429,123.57	131,195.42
1912	18	388,433.36	182,606.13
1913	18	405,832.74	164,098.85
1914	18	425,248.90	185,342.12
1915	18	447,537.18	165,153.83
1916	20	501,094.20	98,429.41
1917	20	*488,855.02	*97,677.07

*To December 1, 1917.

Generally speaking this table shows a steady increase. For the years 1908 to 1915, both inclusive, the tax rate was the same, 18 mills. The total amount of the taxes, both general and special, collected in 1908 was \$538,342.98; in 1915, \$612,691.01, a difference or increase with the same tax rate of \$74,348.03.

This additional revenue has been obtained in very large part by increasing assessments of real property. This increase has resulted not from a general increase of all real estate within the city, but from increases of assessments of individual properties. An increase of \$74,348.03 in revenue represents a very considerable increase in assessed values of individual properties.

The bonded debt of the city of Davenport has increased from \$275,000 in 1902 to \$928,000 in 1917, an increase of \$653,000, or 237 per cent. This includes, however, the bonds issued for levee improvement work of \$243,000, which it is hoped and expected will be retired from the revenue obtained from the levee.

The total assessed value of all property, real and personal, at this time in Davenport is \$25,734,000. This, however, does not include the item of moneys and credits. The assessed value of real property is \$20,953,000. From this it will be observed that real estate, not including moneys and credits, furnishes approximately 80 per cent of the moneys raised by general taxation in Davenport.

Everyone will concede that the burden of

taxation should be equalized as far as it is possible to do so. That no system will be perfect is to be conceded. Judge Dillon has put it very aptly in *McGregor vs. Vampel*, 24 Iowa, 440, where he said: "A system of assessment operating with entire equality and with absolute and relative justice is a desideratum in government yet unattained and perhaps unattainable".

Our statutes provide that real estate must be assessed at its actual value, which is defined to be its actual value in the ordinary course of trade.

The valuation of real property in the city of Davenport has, like the proverbial Topsy, just "grewed up". There has never been any general attempt since Davenport was first founded, in 1838, to establish any general basis for the assessment of real property. What might be called the business center has changed at least twice, while what might be termed the choice residential district has moved at least three, possibly four times. Yet there has been no general adjustment of values to meet these conditions. Fortunately for Davenport these transitions of its business and choice residential centers have not, generally speaking, resulted in any serious injustice. This has been due largely to the fact that values have been rising steadily and, while the business and residential centers have changed, the general increase in value in the city has been sufficient to warrant the maintenance of the same assessments for taxation.

Theoretically all assessments of real estate in this city are made by our city assessor. In truth and in fact they are made in large part, especially in the residential district by deputies hired during the period of assessment.

It is a physical impossibility for our assessor and his one deputy to investigate and value all real estate within the city limits. The condition has made it necessary to hire deputies during the so-called assessment period. Ordinarily about eight men are hired for a period of from seven to eight weeks every year. They are paid \$4.00 per day for their services. Politics has played no part in their selection, but it is manifest that the compensation offered and employment only for a period of approximately two months every year will not attract the men best qualified and best fitted for the work.

The result has been that the assessment of real estate in Davenport is bristling with inequal-

ities. Certain of the property, especially in the residential districts, is over-assessed, a very considerable part under-valued.

There was an attempt made in 1915 to equalize assessments within the district lying below Fourth street on the north, Ripley street on the west and LeClaire street on the east. The changes made in the assessments of the real estate within these limits did away with some inequalities, but it is certain very considerable inequalities remain.

Equitable taxation is impossible without an equalized tax assessment. Unscientific, haphazard and guesswork methods of valuing real estate will nullify the most beneficent tax laws ever enacted. The progressive business man of today is constantly on the lookout for methods and means to better his service, increase his income, reduce his expense and give better satisfaction to his customers.

Unfortunately this is not true of our municipal governments. Reforms or improved methods in our city administration are very often inaugurated only as the result of an insistent public demand. This is not wholly the fault of our officials for it is only a public demand that will justify the installation of new methods in our municipal affairs, especially where an expenditure of money is required.

There has been developed within the last decade what might be termed a scientific basis for the valuation of real estate.

UNIT OF VALUE

The fundamental basis underlying this system of valuation is a unit of quantity. Land in cities is the only property used by man, bought and sold for which there is no unit of quantity. Without such a unit or basis it is impossible to fix fair values.

The difficulty in arriving at such a value can be seen when an attempt is made to fix values of lots on two sides of the same street where lots on one side have a considerable depth and those on the other side are shallow. If the street opportunity were the same on both sides of the street, the prices used to express the values would be identical. But a difference in the depth of the lots create different values.

The most generally accepted unit under scientific methods of valuation of city property today is an inside lot one foot wide and 100 feet

deep with no alley frontage and no corner advantages.

From this unit, based on experience, a system of depth curves has been devised. It has been found by experience that the front 50 feet of a 100-foot lot absorbs $72\frac{1}{2}$ per cent of its value, the rear 50 feet, $27\frac{1}{2}$ per cent. The addition of 50 feet in depth to a 100-foot lot will add but 15 per cent to its value.

The curves of value showing relative values in lots up to 150 feet in depth are as follows:

PERCENTAGES OF UNIT VALUE FOR LOTS FROM 1 TO 150 FEET DEEP

Depth	Per Cent	Depth	Per Cent	Depth	Per Cent
1.....	3.10	51.....	73.25	101.....	100.41
2.....	6.10	52.....	74.00	102.....	100.85
3.....	9.00	53.....	74.75	103.....	101.27
4.....	11.75	54.....	75.50	104.....	101.70
5.....	14.35	55.....	76.20	105.....	102.08
6.....	16.75	56.....	76.90	106.....	102.48
7.....	19.05	57.....	77.55	107.....	102.88
8.....	21.20	58.....	78.20	108.....	103.25
9.....	23.20	59.....	78.85	109.....	103.62
10.....	25.00	60.....	79.50	110.....	104.00
11.....	26.70	61.....	80.11	111.....	104.36
12.....	28.36	62.....	80.77	112.....	104.72
13.....	29.99	63.....	81.38	113.....	105.08
14.....	31.61	64.....	82.00	114.....	105.43
15.....	33.22	65.....	82.61	115.....	105.78
16.....	34.92	66.....	83.21	116.....	106.13
17.....	36.41	67.....	83.82	117.....	106.47
18.....	37.97	68.....	84.42	118.....	106.81
19.....	39.50	69.....	85.01	119.....	107.15
20.....	41.00	70.....	85.60	120.....	107.50
21.....	42.50	71.....	86.15	121.....	107.80
22.....	43.96	72.....	86.70	122.....	108.11
23.....	45.30	73.....	87.24	123.....	108.43
24.....	46.61	74.....	87.78	124.....	108.75
25.....	47.90	75.....	88.30	125.....	109.05
26.....	49.17	76.....	88.82	126.....	109.35
27.....	50.40	77.....	89.35	127.....	109.61
28.....	51.61	78.....	89.87	128.....	109.93
29.....	52.81	79.....	90.39	129.....	110.21
30.....	54.00	80.....	90.90	130.....	110.50
31.....	55.05	81.....	91.39	131.....	110.76
32.....	56.10	82.....	91.89	132.....	111.02
33.....	57.15	83.....	92.38	133.....	111.28
34.....	58.20	84.....	92.86	134.....	111.55
35.....	59.20	85.....	93.33	135.....	111.80
36.....	60.30	86.....	93.80	136.....	112.05
37.....	61.25	87.....	94.27	137.....	112.28
38.....	62.20	88.....	94.73	138.....	112.52
39.....	63.10	89.....	95.17	139.....	112.76
40.....	64.00	90.....	95.60	140.....	113.00
41.....	64.95	91.....	96.04	141.....	113.20
42.....	65.90	92.....	96.50	142.....	113.43
43.....	66.75	93.....	96.95	143.....	113.64
44.....	67.60	94.....	97.40	144.....	113.85

45.....	68.45	95.....	97.85	145.....	114.05
46.....	69.30	96.....	98.30	146.....	114.25
47.....	70.10	97.....	98.74	147.....	114.45
48.....	70.90	98.....	99.17	148.....	114.64
49.....	71.70	99.....	99.58	149.....	114.82
50.....	72.50	100.....	100.00	150.....	115.00

In those cities where this system has been put in force at the time such values are fixed, the widest possible publicity is given to the fact that such valuations are to be obtained. Expressions of opinion are obtained from property owners, real estate and business men. Based on this information, with the use of the table above referred to, the unit of value in a given block is established. When the unit values for the different blocks in a city have been fixed, it is then merely a matter of mathematics to ascertain the value of the different lots or properties.

The unit values fixed are shown in the streets; the relative percentage value to the highest priced property are shown inside block lines. The most valuable property being noted as 100 per cent, and indicated by a star.

There has been an attempt in the so-called Loop District in Davenport to equalize the values of real property. This was done without any unit basis, without reference of the depth of the lots, and for this reason it is inaccurate.

There are, of course, many factors which enter into the establishment of such a unit of value. Property upon two sides of the same street very often does not have the same unit of value. It is a common expression to hear a merchant say: "I wish my store were located on the other side of the street", or, "I wish my place of business were located on such and such a street".

The valuation of real property, too, is affected by other factors, such as alley frontage, corner frontage, or proximity to a corner. The influence of these factors too has been worked out on a scientific basis.

EFFECT OF ALLEYS

Manifestly, property abutting on an alley is more valuable than property having no such access. An alley has the effect of enhancing the value of property abutting on it.

Under the modern system of valuation, the land of an alley is first valued as if for the valuation of a city lot. The total land value of the alley is divided by the total number of feet of abutting lots. The resulting alley unit value is then added to the land value computed without the

alley for each foot abutting on the alley.

VALUATION OF CORNER LOTS

The valuations of corner lots have been worked out on a similar basis. Not only is a corner lot more valuable than an inside lot but the second and often the third lot is often worth more than an inside lot farther away from the corner.

Conditions vary at every corner and every corner therefore presents a new problem. Sizes and shapes of lots differ, intersecting streets differ, and valuations along a main street vary at different points. It is apparent that any given percentage for measuring the enhancement of a corner lot over an inside lot is inaccurate.

One illustration will make this clear. An inside lot 100 feet square on a street with a unit value of \$100 is worth \$10,000. If this lot were to be located at a cross street with a unit value of \$20, \$40, \$60, \$80 or a \$100, as the case might be, the value would be as follows:

BASIS OF CORNER VALUES				
Value Per Foot Main Street	Value Street Cross	Value Corner Lot	Value Inside Lot	Percentage Increase
\$100	\$ 20	\$11,185	\$10,000	12
100	40	11,780	10,000	18
100	60	12,560	10,000	25
100	80	13,693	10,000	37
100	100	15,100	10,000	51

It will appear from this that any fixed percentage to be added to the unit valuation of a lot to make its value as a corner lot is absurd.

The valuation of corner lots have been solved by taking the average enhancement for 100 square feet at the corner as the measure of enhancement of every foot in such a square, and this applies to each square of 100 square feet located within 100 feet square of the corner.

In other words, a tract 100 feet square at each corner is divided into 100 squares of 100 square feet each. A table has been prepared somewhat similar to logarithms from which it is possible to compute the value of each 100 squares. This is so made up as to cover every possible combination of values, of streets forming the corners.

CORNER INFLUENCE

Real estate adjacent to a corner is manifestly of greater value than property located at a greater distance. It has been found that in more than 90 per cent of cases corner influence does not extend farther than 100 feet. Where corner in-

fluence does not extend more than 100 feet the table above referred to will disclose it and measure the enhancement as far as it goes.

Where corner influence extends more than 100 feet other tables have been devised to show the extent and amount.

Under the system just referred to after the unit values have once been fixed, it is merely a matter of mathematics to determine the value of the different lots. Under this method of valuation the personal equation is entirely eliminated.

(Continued in next issue)

MARCH FINANCING SMALL

The volume of municipal financing in March reflects still further the extent to which municipalities are postponing unnecessary improvements which would require the floating of bond issues, says The Daily Bond Buyer of New York. When all March sales are reported, the total will hardly exceed \$20,000,000, which is less than the amount reported for February and but little more than the aggregate sales in January. Compared with the output of new bonds in the month of March in previous years, a large curtailment will be noted.

According to the records of The Daily Bond Buyer, the total output of permanent state and municipal issues in March and in the three months' period ending March 31st was as follows:

	March	Three Months Ending March 31
1918	\$20,000,000*	\$ 61,500,000*
1917	35,325,126	99,658,068
1916	28,357,595	117,325,715
1915	68,230,533	139,207,498
1914	43,743,711	154,821,324
1913	16,269,972	80,306,181
1912	19,350,000	76,684,797
1911	28,440,217	134,692,671
1910	67,516,310	97,154,893
1909	32,783,340	87,763,910
1908	19,309,299	91,899,871
1907	11,982,241	63,022,053

*Estimated.

Oskaloosa, Iowa, has authorized a special election May 20th for the purpose of voting on the question of the construction of a municipal water works plant. Cost, \$400,000.00. Plans and estimates have been prepared by Burns & McDonnell, Consulting Engineers, Kansas City, Missouri. T. H. Carlin, City Clerk.

Viable Roads for War Efficiency

By Lt. Col. James W. Howard, C. E., Consulting and Testing Engineer on Roads and Pavements

A viable road means one which is in condition properly to fulfill its function of providing safe and rapid transit of vehicles. A constantly viable road is a road, including culverts and bridges, which is efficient for traffic at all times.

Europe for many years, and now our country, has realized that one of the greatest factors necessary for preparation and prosecution of modern warfare is constantly viable roads, necessary for many purposes, among them:

USES OF MILITARY ROADS

(a) To furnish through routes for auto trucks to deliver themselves from where manufactured to the point needed for use or for export.

(b) To enable auto trucks to carry large loads of machinery, ordnance, munitions, vast supplies for military and civil purposes, directly from where first loaded to where their loads are to be used or exported; and to do so quicker and cheaper, up to at least 300 miles, than to truck supplies to a local railroad station, reload on the railroad, go by railroad to another location and there reload on trucks and deliver the supplies to the exact location needed for use or export.

(c) Viable through routes for auto trucks relieve not only railroad transit congestion, but especially the great and increasing congestion at railroad termini.

(d) To eliminate terminus railroad freight congestion at large cities by having good local roads around and radiating from large cities and export points to surrounding small towns, which enables the railroad freight stations of many small towns to be used to handle freight thus kept away from centralized large city congestion; because those roads enable auto trucks to have many places to receive freight and deliver it directly to the exact locations needed in and near large cities or on the exact export dock. The local inadequate large freight stations in the large cities are thus relieved from congestion in Europe, and must be so relieved in America. Otherwise, disaster will follow the choking and

delay now prevalent and increasing in many of our large cities. The congested termini of our largest cities, holding back cars loaded and idle on miles of side tracks outside the cities, is one of the reasons why coal, for example, so necessary for our productive efficiency, cannot be delivered to the consumer, and why ships cannot be built faster, because waiting for materials.

Slowness of transit and congestion of the necessary supplies has lost many wars. Viable routes, furnishing sure transit and prompt delivery, have won wars and are a tremendous necessity for us now.

Experience of past wars has established the military dictum that the war preparation and continued supply of soldiers, materials and adjuncts have three factors: First and most important in quality and quantity; second, speed of preparation and delivery; third and last to be considered is cost—for the war must be won, cost what it may.

NEED FOR IMMEDIATE ACTION

Viable roads are a military necessity and a vital adjunct. They must be of good quality, quickly supplied and maintained at whatever necessary cost. This can best be done by using existing good roads, linking them up with old roads to be quickly repaired and resurfaced; also, where absolutely necessary, some old bad and weak roads must be entirely rebuilt. The national, state and council officials should now quickly select the roads in many parts of most states necessary for war and pressing domestic supplies; inspect them; decide which must be repaired, resurfaced or entirely rebuilt, to carry heavy auto truck unit loads and many of them. Then work on these roads in many parts of most states must be quickly started and rapidly continued, by fixed bid price or percentage contracts, force account or day labor, including use of prisoners (properly paid) where possible.

FOUR GENERAL GROUPS OF MILITARY ROADS

The roads needed for war productiveness and deliveries and for sustaining the people during the war, can be divided into four general

groups, viz:

First—Roads which are in good condition and will bear the heavy loads and resist the wear of traffic and weather, sufficiently to be kept, with attention, in constant viability.

Second—Roads which have firm foundations, but have their wearing surface layers so much out of repair in spots as to impede traffic and injure automobiles. Such roads can usually be quickest (speed being most important) and cheapest put in viable condition by repairing the spots with the same kinds of materials as now compose those roads.

Third—Roads which have firm foundations, but are in bad disrepair, and need new resurfacing over large sections or the whole road, and which can be quickest and economically (considering reduction of subsequent maintenance) made viable by resurfacing them. To do this it is cheapest and quickest where possible to use local materials, such as crushed stone, crushed hard slag, gravel, sand and sometimes ground mineral filler, mixed hot in various proportions to be as dense as possible, together with suitable bitumens, such as asphalt cements. Spread the mixture and consolidate it with heavy steam or gasoline rollers to a finished depth of at least 2 inches at all points. It may be necessary in some cases to even up, not cut down, the old road surface by any of the established methods and materials. In some cases it is best to fill depressions and even up the old macadam or other old road surface before resurfacing, by using crushed stone or its equivalent and pouring hot bitumen on it (penetration method). The asphalt concrete or other bituminous compound thus used for resurfacing, when rolled hard, can be cooled with water and thus at once opened to traffic as the work progresses. Work can be done on alternate sides of the road and traffic kept moving.

Fourth—Roads which have no firm base and which must be rebuilt, including grading, foundation and wearing surface layer. In such cases, where traffic can be safely blocked and sent by other roads for some time, it is slow but feasible to construct new roads with various materials needing time to use, such as Portland cement concrete foundations, brick, stone blocks, etc. In some cases where entire new roads must be built some time can be saved by constructing crushed stone or very coarse gravel

foundations poured with suitable hot bituminous binders or cements.

While the foregoing is suggestive, local conditions will often compel other methods and materials to be used.

The hundreds of miles of viable roads now necessary for military efficiency will also furnish our country with a great asset and help in the post-war period, when they will be needed to increase economic efficiency then necessary to help pay the cost of war and re-establish and maintain prosperity.

STATEMENT OF THE OWNERSHIP

MANAGEMENT, CIRCULATION, ETC., REQUIRED BY
THE ACT OF CONGRESS OF AUGUST 24, 1912

Of American Municipalities, published monthly at
Marshalltown, Iowa, for April 1, 1918.

STATE OF IOWA }
COUNTY OF MARSHALL } ss.

Before the Notary Public in and for the state and county aforesaid, personally appeared Frank G. Pierce, who, having been duly sworn according to law, deposes and says that he is the owner of the American Municipalities, and that the following, is to be the best of his knowledge and belief, a true statement of the ownership, management, (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor and business managers are: publisher, Frank G. Pierce, Marshalltown, Iowa; editor, Frank G. Pierce, Marshalltown, Iowa; managing editor, none; business managers, none.
2. That the owners are: Frank G. Pierce.
3. That the known bondholders, mortgages and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages or other securities are: none.
4. That the two paragraphs next above, giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association or corporation has any interest direct or indirect in the said stock, bonds or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is

FRANK G. PIERCE.

Sworn to and subscribed before me this fifth day
of April, 1918.

(Seal)

W. T. BENNETT, Notary Public.
(My commission expires July 4, 1918.)

THE UNBALANCED BID

We are under the impression that the evils of the unbalanced bid were so generally known and appreciated, even by the public at large, that the acceptance of such a bid in its most flagrant form was practically unknown at the present day. We are therefore surprised to learn that a contract was let by the city of Chicago last June for repair work on asphalt streets, to a contractor whose bid contained the most glaring example possible of unbalanced bidding. Specifications called for two kinds of work, one the resurfacing of asphalt on the old foundation, the other the practical rebuilding of the pavement; the estimated amount of the former being 27,000 square yards and of the latter 13,000. The work was let to a contractor who bid \$1.75 per square yard for resurfacing and 1 cent per square yard for reconstruction; the use of these figures and the estimated quantities making this the lowest bid. At the end of the year it was found that 11,100 square yards of reconstruction work had been done at a cost of \$111; but that 180,000 square yards of resurfacing had been done at a cost of \$315,000. This sum was \$96,500 more than the work would have cost under that bid which gave the lowest price for resurfacing work. We are loath to accuse collusion in this case, but we cannot believe that any contractor in his senses would have submitted such a bid unless he had felt very positive that the amount of resurfacing would have greatly exceeded that of reconstruction. If this knowledge was his merely because of his superior judgment, the department officials, with their much greater facilities for knowing what work was likely to be done, either knew it also or were guilty of stupidity of gross carelessness, or of worse. If the excuse can be given that they were compelled to award the contract to the lowest responsible bidder, then the regulations should long ago have been changed to include the clause now found in the majority of cities—that unbalanced bids will not be received.

—Municipal Journal and Engineer.

THE IMHOFF PATENTS

Some time ago it was suggested that the Federal Custodian of Alien Property might possibly offer the patents of Dr. Karl Imhoff for sale and the suggestion was made that if they were offered for sale that the municipalities of the

country arrange to buy them.

The question was immediately taken up with Washington and after correspondence with different bureaus the patent was finally discovered in charge of the Federal Trade Commission. The following letter from the secretary of this commission explains the present status of these patents:

This is in answer to your letter of March 23. The Imhoff Patents, under the law could not be sold, but were subject only to license. Due to the fact that the Pacific Flush Tank Company had been administering these patents for a number of years, it seemed desirable until further order to continue that company in the operation of the business in this country. For this reason the Pacific Flush Tank Company were licensed by this commission to install and continue under the control of the commission the installation of tanks on the Imhoff system. All licenses to municipalities actually to operate the Imhoff Tanks are issued by the commission and not by the Pacific Flush Tank Company. The authority of the Pacific Flush Tank Company is to collect royalties, accounting to the commission on work already in process. They are authorized to negotiate for the installation of new work, but the actual license in every case in the future is issued by this commission.

Very truly yours,
FEDERAL TRADE COMMISSION,
L. L. Bracken, Secretary.

SEWER PRICES

At a sewer letting at Marcus with eleven bidders, the following bids were the lowest and were awarded the contracts:

Comstock & Hanson of Cedar Rapids, Iowa, accompanied by certified check for \$1000.00.

12 inch vitrified pipe sewer, per foot	\$ 1.45
12 inch concrete pipe sewer, per foot	1.85
10 inch vitrified pipe sewer, per foot	.75
10 inch concrete pipe sewer, per foot	1.25
8 inch vitrified pipe sewer, per foot	.65
8 inch concrete pipe sewer, per foot	1.10
Flush tanks, each	80.00
Lamps holes, each	15.00
Drop man holes, each	65.00
Regular man holes, each	50.00

Upon computation the total amount of this bid was found to be \$23,964.15.

M. Tschirgi & Sons of Cedar Rapids, Iowa, accompanied by certified check for \$500.00.

For sewage disposal plant complete \$10,995.80.

Tarvia

*Preserves Roads
Prevents Dust*

Tarvia in the famous Ogden Canon, Utah

When a town is contemplating the use of Tarvia to preserve its roads and prevent dust, it is very apt to write to other towns where Tarvia has been thoroughly tried out. For instance, Rock Springs, Wyoming, secured the following report from the authorities at Ogden, Utah:

"I am pleased to state that Tarvia has proved a success in the city of Ogden. For the past three years we have been treating our gravel and macadam roads with Tarvia and in every case it has proved an entire success. I might say we are now constructing about two and one-half miles of Tarvia road on Harrison Avenue and the Dug-away, which is part of the boulevard leading to our famous Ogden Canon resorts.

(Signed) "CRIS. FLYGARE
"Supt. Streets and Public Improvements."

Tarvia has behind it ten years of experience and one of the strongest organizations of road engineers in America.

Now, when the nation needs good roads so that motor-trucks can help out the great railroad congestion, it is more important than ever that every community should investigate the road proposition thoroughly. Obviously, what we need is more good roads to save the situation.

To any one interested we should be glad not only to send our regular good-roads literature, but to give advice on specific road problems.

The *Barrett* Company

New York Chicago Philadelphia Boston
St. Louis Cleveland Cincinnati Pittsburgh
Detroit Kansas City Minneapolis Nashville
Birmingham Salt Lake City Seattle Peoria
THE BARRETT COMPANY, LIMITED:
Montreal Toronto Winnipeg Vancouver St. John, N. B.
Halifax, N. S. Sydney, N. S.



IOWA'S COAL SUPPLY

It will be of interest to municipal officials to know the kind of coal they will be able to buy during the present summer and next winter. The United States Fuel Administrator has fixed the following rules:

Coal from Missouri, Arkansas, Kansas, Oklahoma and Iowa may be shipped to all that part of Iowa on or west of a line via the C. R. I. & P. R. R. from Glenville, Minnesota, to Mason City, Iowa; thence via C. M. & S. P. R. R. to Nora Springs; thence via C. R. I. & P. R. R. through Waterloo to Cedar Rapids; thence via C. M. & S. P. R. R. to Ottumwa; thence via C. R. I. & P. R. R. to Keokuk.

Coal from Illinois may be shipped during the summer to all parts of Iowa on and east of a line from Sioux City via C. M. & S. P. R. R. through Manilla and Adel to Des Moines; thence via C. B. & Q. R. R. to Albia; thence via Wabash R. R. to Moravia; thence via C. M. & S. P. R. R. to Missouri line. From October 1 to March 31 no Illinois coal will be shipped north of the C. M. & S. P. R. R. from north McGregor to Sioux City.

The movement of special grades of coal for gas, by product, metallurgical and smithing purposes contrary to above rules will be controlled by the United States Fuel Administration under permit regulations.

From the above you can see just what kind of coal you may burn next winter.

SHORT-TERM MUNICIPAL LOANS

In many states, the statutes prohibit municipalities from selling bonds bearing interest at a rate higher than 6% and at the same time require that bonds be sold at not less than par. In other words, the municipalities must not pay more than 6% net for money borrowed through the issuance of bonds.

In the last year there has been a marked rise in money rates affecting all borrowers, municipalities included. Cities, like other borrowing corporations, now hesitate to float long-term bond issues at present high rates. In some instances, recourse is being had to the short-term loan, in the belief that this may be refunded into a long-time issue in a year or two when the money market is expected to be more favorable to the borrower.

But what if interest rates continue to rise, or

present rates are maintained, for several years?

A city whose borrowing operations are not hampered by statutory limits as to interest rate, etc., will be in a position to refund maturing loans at higher rates if necessary. But how could a city provide for maturing notes in a 7% money market, if the law prohibited the issuance of a bond bearing higher than a 6% interest rate?

A word of caution is, perhaps, called for in this connection. This is a time for the exercise of careful judgment by the officials who are now determining the fiscal policy of municipalities. It is hoped that the American city will go through the war period and the trying reconstruction era that must follow without staining the perfect financial reputation it has built up during the last fifty years.—The Bond Buyer of New York.

REPAIR YOUR PAVEMENTS

The chances are that comparatively little new pavement will be laid this year and this will give the municipalities a chance to place their old pavements in good repair. In every city there are pavements that can be put in first class condition at a small expense and councils and engineers should at once make plans to do this work. A pavement in poor repair is a liability to the city and a few dollars spent in repairs will save many dollars in new construction. The time to outline this repair work is now so that the work can be completed before fall.

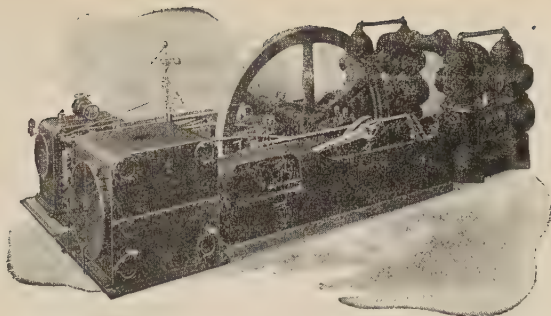
HAWARDEN'S ANNUAL REPORT

City Clerk T. J. Reeves of Hawarden, is one of the clerks who always publishes a full report and one that can be understood by everyone. His last report contains a number of interesting facts.

The total debt of the city amounts to \$23,500.00, but at the end of the year there was cash on hand in all funds the sum of \$31,274.22, thus showing not a debt but a net surplus of \$7,774.22.

Hawarden has an electric light and water works plant worth \$50,000.00 and this plant is all paid for with the exception of \$6,000.00 in bonds outstanding.

This progressive little city has taken advantage of the law passed by the last legislature, has voted bonds and expects to build a fine city hall and community center building this coming summer.



MARSHALLTOWN, IOWA

Hans Madsen, Superintendent, referring to a 4,000,000 gallon pump installed by this Company, says:

"We are highly pleased indeed. The pump performs far beyond our expectations and the guarantee, and the engine works perfectly."

Write for Bulletin 1637

Allis-Chalmers Manufacturing Co.
Milwaukee, Wisconsin

**FURNISHED
AND
APPLIED**

ROAD OILS

Rex No. 2, the "Rubberoad" Surface

For Dirt Streets and Roads—One-Fortieth the Cost of Paving

What everyone has been wanting for dirt streets and roads. An Oil that makes a Rubber Surface, does not grow dusty, and wears like iron. Officials who have used practically every other oil are putting "Rubberoad" Surface on their streets and roads.

Write for samples and compare with other road oils, or have chemical tests made. Don't let people ship you a thin watery fluid for Road Oil, but demand to see samples before buying your this year's requirements.

We will contract to sell and apply material, furnishing our modern equipment, making it unnecessary for you to purchase costly equipment for the few days you would possibly use it. If you have modern equipment, let us quote you on your material.

Eliminate Mud and Dust. 37 different contracts with 20 Iowa Municipalities and Counties last year show the large percentage who order additional work within a few months. We will be glad to refer you to this work. Try a few of your streets or roads and you will demand it on all of them.

Have us protect you now on your this year's requirements.

Iowa Road Building Company

515 Good Block, Des Moines, Iowa

When writing advertisers please mention American Municipalities

Classified Advertisements

Officers of members of the League of Iowa Municipalities may run one advertisement each month free of cost.

FOR SALE—On account of purchasing a combined Street Flusher and Sprinkler, the city of Fort Dodge has two Sprinkling wagons which are being offered for sale at a bargain. The wagons are in excellent condition and will be sold cheap. If interested, write C. H. Smith, Commissioner, Fort Dodge, Iowa.

FOR SALE—On account of the city of Fort Dodge having purchased a combined motor driven Street Flusher and Sprinkler, we are offering for sale at a bargain, one Studebaker horse drawn air pressure Street Flusher. This Flusher has been used three years, but is in excellent working order. It is just what is needed for paved streets and will be sold cheap. Further information and price will be given by addressing C. H. Smith, Commissioner, Fort Dodge, Iowa.

FOR SALE—All brass Artesian well cylinder, 6½ in. x 54 in. with bronze ball valves, and 60 feet of 7½ in. galvanized well tubing, suitable for deep well pumping.

FOR SALE—A good sprinkling wagon, Auston make, at a reasonable price. G. A. Tegeler, Dyersville, Iowa. 418

FOR SALE—One Seagraves horse drawn hose wagon and fire harness, same as new, for sale at less than half price. Address, J. O. Gregg, city manager, Iowa Falls, Iowa.

FOR SALE—All brass Artesian well cylinder 5¼x36 inches with bronze ball valves and 300 feet of 3½ inch Octegan selected ash wood rods fitted with dropped forge sucker rod couplings, suitable for pumping from deep well, using steam head or lever stroke. For particulars, address G. F. Taylor, city clerk, Stuart, Iowa.

FOR SALE—All brass Artesian well cylinder 3¼ in. x 48 in. with bronze ball valves and 350 ft. of 3½ in. number 1 wood rods and couplings, suitable for pumping from a deep well using steam head or lever stroke. For particulars, address, G. F. Taylor, City Clerk, Stuart, Iowa. 107

FOR SALE—Having recently made arrangements with a power company to furnish electricity the town of Coggon has the following for sale. 1-28HP Bates & Edmonds double cylinder gasoline engine. 1-125 Volt 120 amp. continuous load D. C. generator, 1200 R M P. 1-55 volt 25 amp. continuous load D C generator, 1400 R M P. 1 fully equipped switch board. Everything in good condition. For information write F. W. Lindahl Town Clerk. 106

FOR SALE—Having recently made arrangements with a neighboring town to furnish electric current for lighting and power. The town of Shelby offers for sale a Gas Lighting Plant, complete in good running order will sell at a bargain, as the town has no use for it, address all communications to town clerk of Shelby, Iowa.

FOR SALE—The incorporated town of Milford has for sale 1 Davis carbide feed acetylene gas plant in perfect condition. Model B generator 75 pound capacity. 23 burners with fixturers. 150 feet ½ inch pipe. Will sell at a sacrifice. For information write J. E. Shelledy Clerk, Milford, Iowa.

FOR SALE—Having recently installed a water works system the town of Lowden offers for sale a chemical engine in good condition. For particulars write Richard Parr, Town Clerk, Lowden, Iowa. 116

FOR SALE—One Lukenheimer fire alarm, (steam) whistle, 5x12 inch copper cylinder; also one Schwartz Electric Co., No 3, 10 inch twin gong, both good as new but have no steam plant and can't use them. First best offer of cash gets them. A. W. R. Boller, Fire Chief, Nevada, Iowa. 418

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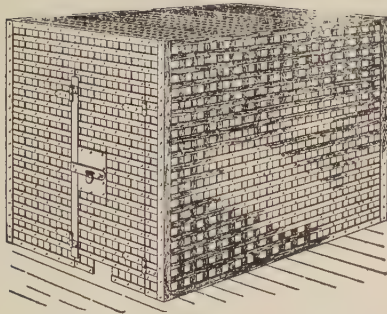
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Marshalltown, Iowa

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OF

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American Municipalities

June, 1918

Vol. 35, No. 3

Entered as second class matter December 1, 1911 at the Postoffice at
Marshalltown, Iowa, under the Act of March 3, 1879.

Published by

Municipal Publishing Company

Marshalltown, Iowa

Frank G. Pierce, Editor

Subscription Price, - - - \$1.00 per year

Advertising rates made known on application

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Resolution Adopted by League of Iowa Municipalities

That without evasion or reservation, we do promise that our every word, act and deed shall be in support of our President, our Governor, our Sons and Brothers,—the Sons of the Republic—and their Allies across the sea who are fighting the battle of liberty and freedom, the battle of the weak against the strong, of right against wrong.

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COMMENT

If local health officials are to enforce the rules of the State Board of Health in regard to venereal diseases they must have the active help of the doctors.

The average doctor will take a chance on violating the law to help out a wealthy or influential patient and so long as they do this the local health officers can accomplish little.

If the State Board of Health would revoke the certificates of a few prominent doctors who do not comply with the law the rest of the members of the medical profession would decide to obey the law.

The doctors are the greatest violators of these new rules and they must be made to obey them before much progress can be made.

The fact that the doctors violate the law is no excuse for local officials not trying to enforce the law.

If it is true that more soldiers are knocked out by venereal disease than by the enemy, then any man who does not do all in his power to protect the soldiers is a traitor.

If a doctor does not report a case of this kind and five or ten soldiers are infected and compelled to go to the hospital that doctor is a traitor and should be shot at sunrise.

If all the doctors and druggists and others who have violated these rules should be shot some morning at sunrise it would be a regular fourth of July so far as noise is concerned, and the undertakers would have a busy day.

If you have not already made arrangements to repair your pavements this year you had better get busy because it will be cold weather again before you know it.

The property owners who have paid for the pavement are entitled to have it kept in repair and the city administration that does this repairing will be popular with the taxpayers.

If you have any suggestions for the program for the next meeting of the League of Iowa Municipalities write the secretary as the program will be outlined in the near future.

The officers want to arrange a program that will be of interest and value to the members and the only way we can do this is to know what you want.

THE WAR CHEST QUESTION

In this issue is published two views of the war chest method of handling the cost of different local war activities.

The plan adopted by the city of Fort Dodge and Webster county is set out in full, and the argument in favor of such plans presented. Following this paper is a criticism of the war chest plan by the secretary of a Commercial Club in Ohio. The interesting thing to students of municipal affairs, is that in the adoption of the different plans of handling the war activities, the communities have been given Home Rule, and that each community handles these affairs in the way that the majority of the people think best, and in the way that will bring the best results under all of the conditions. The chances are that if the government has adopted a plan for all of the communities of the country to follow, that it would not have secured nearly as good results as it is securing by leaving each community to work out its own salvation in the way that best meets its own conditions.

The success of the different communities working out their method of war activities is certainly a strong argument in favor of Home Rule, not only in war activities, but in all local matters. If a local community can work out a successful method of raising millions of dollars for war activities, it is certainly true that that same community could work out methods of handling its local problems without being bound by limitations placed by the state legislature.

The war has shown that people will accept responsibilities and meet them and it is to be hoped that the state legislatures will appreciate these facts, and allow the cities and towns more Home Rule, so far as strictly local matters are concerned.

VALUATION OF REAL ESTATE

The paper completed in this issue, by Hon. W. T. Waterman of Davenport, on the question of Valuation of Real Estate in that city, is of the greatest interest to all of the people of the state. In most of the cities and towns of Iowa little or no effort has been made to place a value on the real estate other than the guess made by the assessor in a hurried assessment once in two years. Municipal officials could do nothing else that would be of more value to their people than

to arrange at this time for a full and complete valuation of all the real estate in their limits.

The National Government has asked that municipal improvements requiring material and men should be cut to the lowest possible amount this year on account of the great demand caused by the war. This will result in greatly reducing the amount of improvements, especially street improvements, and other work that can be postponed. Municipal officials will, therefore, have time and opportunity to arrange for a full valuation of the real estate in their respective communities.

At this time, while the country is at war, municipalities should make special efforts to bring their administration up to the highest possible efficiency, and there is no department in which efficiency is more needed, than in the assessment of property. This work will require the services of few laborers and as there is no particular activity in many lines of business it would seem that it would be comparatively easy to secure the services of real estate men, contractors and other business men necessary to make a comprehensive valuation. You can do nothing that will be of so much value to your people and to your municipality as to make a study of the question of valuation of property and arrange to have the property of your city valued for taxation purposes during the next few months. The city of Dubuque had all of its property valued at an expense of about seven thousand dollars, so that the cost would not be prohibitive in any city or town in the state. If you want to do something of the greatest value to your people investigate this matter of valuation of real estate.

Chester A. Smith, Member American Society of Civil Engineers, and associate member of the firm of Burns & McDonnell, Consulting Engineers of Kansas City, Missouri, has accepted the appointment as Captain in the Sanitary Corps of the National Army and has reported for service at Fort Ogelthorpe, Georgia, his work being under the Department of the Surgeon General of the National Army. Captain Smith is thirty-six years of age, is a graduate of Kansas State University, and has been nine years with the firm of Burns & McDonnell, Consulting Engineers, in which work he has had extensive experience in water works and sanitation.

Special Regulations Venereal Diseases

Revised and Adopted at a Special Meeting of the State Board of Health, Held at Des Moines, Iowa

VENERAL DISEASES

The State Board of Health at a meeting held May 29, changed the wording of the third paragraph of the rules recently adopted for the control of venereal diseases.

Under the rules as originally adopted it was provided that each case or suspected case should be restrained in a separate house or detention hospital. It was decided that better results would be obtained and more cases reported to the local boards if these cases could be restrained at home unless they were a menace to the public health.

The rules and amended and adopted are as follows, the new wording in the third section being in italics:

WHEREAS, by section twenty-five hundred seventy-five-a6a, (2575-a6a), Supplement to the Code of 1913, syphilis and gonorrhea are declared contagious and infectious; and

WHEREAS, in recent months there has been an alarming increase in the number of persons in the city of Des Moines and other cities of the state afflicted with these diseases; and

WHEREAS, in order to protect the health of the thousands of our soldier boys now in training at Camp Dodge, and of the thousands that are yet to come, and to maintain at the highest point the efficiency and strength of these soldiers, and to prevent the spread of these plagues or diseases in Des Moines and its vicinity and throughout the state, it is necessary to restrain and treat all persons so afflicted; and

WHEREAS, in order to prevent the spread of syphilis, gonorrhea and chancroid, it is necessary that all persons who have been exposed to said diseases shall be restrained until the time for infection has passed; and

WHEREAS, the State Board of Health finds and does hereby declare that the rapid increase of the number of persons in the state of Iowa afflicted with the diseases mentioned in the preamble, to wit: syphilis, gonorrhea and chancroid, is not only alarming but has reached a point of actual public danger, and to meet the emergency

thus existing, said Board hereby formulates the following regulations:

First: Every physician, nurse, attendant, hospital superintendent, druggist, member of the police department, police magistrate or other person having knowledge of a known or suspected case of syphilis, gonorrhea or chancroid, must immediately report the same to the mayor of the city or town, or township clerk of the township, if the case is not within the corporate limits of an incorporated town, also to the secretary of the State Board of Health, such report to be in writing and to contain the necessary information from which the person afflicted with any or said diseases may be located, and from which the necessity of restraining such persons may be determined.

Second: It shall be the duty of the chief of police, or of any peace officer within the state of Iowa to cause all persons arrested for being found in a disorderly house, or for prostitution or lewdness and all prostitutes and all persons arrested for prostitution or lewdness and all other persons held under arrest, who are suspected of having syphilis, gonorrhea or chancroid, in the infectious stages, to be examined before being released or discharged, and if any of such persons are found to be afflicted with any of said diseases, or to have been exposed to the same, to report the same immediately as required in rule first hereof.

Third: It shall be the duty of the mayor, or township clerk, as the case may be, whenever a person is found in a disorderly house, or is guilty of prostitution, or is suspected of having syphilis, gonorrhea or chancroid in the infectious stages, or is suspected of having been exposed to any of said diseases, or where the existence of a case of venereal disease is known, such as is herein above defined, to immediately issue an order to the chief of police or to a peace officer, directing such officer to cause the person afflicted or suspected of being so afflicted with such disease, *to be investigated by the health officer of the local Board of Health and such health officer, in case such person is so afflicted, shall cause*

the person to be restrained at home unless the person, in the judgment of the health officer, is a menace to the public health, in which case such person shall be restrained in a separate house, house of detention or hospital, there to be restrained until the health officer, by proper written order, authorizes the release and discharge of said person; provided, however, whenever a reported case involves a person attached to the military or naval organization with which he is connected, to be by such organization restrained until such time as such health officer authorizes his or her release or discharge.

Fourth: All city, county and other local health officers shall use every available means to ascertain the existence of, and to investigate all cases of syphilis, gonorrhea and chancroid within their several territorial jurisdictions, and all persons suspected of being afflicted with said diseases, or any of them, and to ascertain the sources of such infection.

Local health officers are hereby empowered and directed to make such examinations of persons reasonably suspected of having syphilis, gonorrhea or chancroid as may be necessary for carrying out these regulations, and to detain said persons for such length of time as may be necessary in order to determine whether such persons are so afflicted, or have been exposed to said diseases, or any of them. Owing to the prevalence of said diseases among prostitutes and persons associated with them, all such persons are to be considered within the above class.

Fifth: In case any person or persons liable for the support of such person or persons so restrained shall be financially unable to secure the proper care, provisions or medical attendance, it shall be the duty of the mayor, town or township clerk, through the health officer, to procure for such diseased person proper care, provisions, supplies and medical attendance while so restrained. All bills for supplies furnished and services rendered by order of the mayor, town or township clerk hereunder shall be authorized and paid as provided by section twenty-five hundred seventy-one-a, (2571-a), Supplement to the Code of 1913.

Sixth: It shall be the duty of the health officer in all cases where persons have been restrained under the order of the mayor, or township clerk, as provided in these rules, to permit the person so restrained to employ at his

or her own expense, the physician or nurse of his or her choice, and to allow such restrained person to provide such supplies and care while so restrained, as he or she shall so require.

Seventh: No person shall move, caused to be moved or assist in moving any person restrained under the order of the mayor, or township clerk as herein provided, from one place to another within the city, town or township without first having the written permit or order of the local health officer.

Eighth: It shall be the duty of all the local health authorities, the health officer, and the members of the police department, and all peace officers to co-operate in every way with the United States Public Health Service in its plan for the organization and maintenance of clinics for the control of venereal diseases and in selecting the best measures for such control, and all military police and health officers of the United States government assigned to, and on duty in the state of Iowa are hereby required to observe the provisions of these rules applicable to the police department and peace officers of the state of Iowa.

Ninth: Any druggist or other person who sells any drug, compound, specific or preparation of any kind used for the cure of any of said venereal diseases, shall keep a record of the name, address and sex of the person making such purchase. A copy of said record shall be mailed each week to the health officer of the city, town or township wherein the drug, compound, specific or preparation was sold, and to the secretary of the State Board of Health.

Tenth: No person who is infected with syphilis, gonorrhea or chancroid shall knowingly expose another person to infection with any of said venereal diseases or perform any act which exposes another person to infection.

Eleventh: All information and reports concerning persons infected with venereal diseases shall be inaccessible to the public except in so far as publicity may attend the performance of the duties imposed by these regulations and by the laws of the state.

Twelfth: These regulations are in full force and effect from and after this Twenty-ninth day of May, One Thousand, Nine Hundred, Eighteen, (May 29, 1918).

GUILFORD H. SUMMER,
Secretary-Executive Officer,
Iowa State Board of Health.

(Continued on page 59)

After the War Prices on Materials

Paper Presented By R. E. McDonnell, Before Southwestern Water Works Association

After the war prices on water works materials has greatly concerned superintendents of both municipal and privately owned water plants, but now that the war is on its fourth year and no end in sight, the public is gradually adjusting itself and becoming reconciled to war prices. The water works officials who have withheld improvements and postponed purchases now find themselves in a sorry plight by facing a prospect of still higher prices after the war. Had the war been of short duration, things would have been different. The war has already lasted long enough to establish new economic conditions that will not be abandoned when the war is over.

LABOR QUESTION

The price and availability of labor, both skilled and unskilled, is one of the chief determining factors of prices. Mechanical and skilled workers in pump factories, valve and hydrant factories, meter factories and pipe foundries, are now receiving about twice to three times their former wages, and the laborers having once accustomed themselves to short hours and high wages, new habits of living are formed. Imagine in your own case if after enjoying for several years two hundred dollars per month, you were required to re-adjust your affairs to a salary of one hundred and fifty dollars? You probably would not accept it, but engage in something else of a similar nature. Labor of unskilled kind would not be content with reductions, and the labor that has gone to war will, upon coming back, be of an entirely different character from what it was when it left the water trenches for the fighting trenches. A few years fighting for his country, seeing new lands, new cities and mingling with intense activity will completely transform the man to one of higher ideals and aspirations. He will no longer be content with the menial tasks. He will learn that he is capable of doing bigger things. The contractor, the farmer, the foundryman and the manufacturer who are looking for their labor back again after the war will look in vain, for their mental, moral and physical changes

will be so great that the men who return will have other things in view.

Labor cannot help being the scarcest commodity in America for at least several years after the war. Previous wars, although trifles compared with this war, were examples of producing a scarcity in labor for years following their close.

A wonderful equalizing effect will also result. The restoration of ruined cities in Europe will attract American engineers, contractors and material dealers. We are now as a result of our new knowledge of the world, bidding on foreign work with the same keenness as if the job were in the adjoining city. The immense merchant marine now used for war purposes will convey labor and materials readily to every part of the world. France, South Africa or Egypt will be almost as accessible as remote parts of America.

Foreign countries will not have the barriers that formerly existed. Our machinery, pumps, pipe, meters, filters and supplies of every description have, since the war started, been tried out and were so well liked that American factories are now busily engaged in shipping water works supplies to China, South Africa, Palestine and all South American Republics; in fact, all over the world. Our mechanical filter plants have so pleased the South American countries that they will not be satisfied with any other. One of our assistant engineers now in Uruguay, supervising the installation of a water works, lighting and sewerage system, writes that the Uruguain officials are so well pleased that American engineers, contractors and materials will hereafter have the preference. These markets opened up since the war are not going to close after the war.

A demand has been created that will continue, and demand is one-half the cause of price making. If the labor to produce the supply is going to be scarce, we then have a scarcity of supply and an increase in demand—two functions that tend to maintain high prices. Many cities have waited and continue to wait, expecting

lower prices. Cities requiring water purification plants have continued to use polluted supplies, thereby endangering the health of their citizens, all because of a mistaken idea that prices would be lower. Fire protection equipment, both in pumps, larger mains and fire apparatus, has been postponed, awaiting lower prices after the war, until now we have inadequate fire protection in many cities. This condition, already alarming, is made doubly worse by the frequency of incendiary fires throughout the country. The holding off of these improvements until after the war would increase the normal demand to the point of producing an increase in prices following the war. Cast iron pipe, the largest item of cost in water works construction, is held down in price now only by the governmental control of the pig iron price, and with foundries already petitioning the government to permit an increase, one can readily see that with the governmental control removed, the price would immediately go upward. The same is true of the copper market control. The demand for copper was never greater in the history of the world and when the government regulation of price is removed, copper will immediately go upward to meet the demand. Cities, therefore, holding back lighting improvements or electrifying their pumping plants in anticipation of lower prices, are going to meet with disappointment. The war demand for water works materials has been no greater than similar demands for all classes of commodities. The use of American materials in the war has served to demonstrate their adaptability, which, in itself, will create new markets. One of the remarkable achievements of the war accomplished through American water works materials, was the capture of Palestine from the Turks. The capture of Palestine in the past was attempted many times in the last fourteen hundred years, and the British attributed the failures to the lack of water supply. With the use of American made pipe, pumps and valves and equipment, a ten-inch pipe line was laid one hundred and fifty miles across the desert, supplying drinking water for the troops, camels and munition trains. The pipe being carried in by use of camels, water was made available for use as the pipe laying progressed.

Facts taken from history give excellent precedents as to what we may expect of prices in the

future. In the period covered by the French Revolution, America was also engaged in war with England, so that at that period the whole civilized world was at war. While business was small then, yet prices went through the same performances they are repeating today. Prices after the war rose and remained at the maximum during the war and for a period of about five years after the close of the war. In 1864, the increase was about fifty per cent above the normal of 1851. The decrease toward normal was only about twenty per cent, covering several years, with a sharp increase again at the Franco-Prussian War in 1871, and the prices did not return to normal until 1880, ten years after the close of the Franco-Prussian War.

Prices in time will undoubtedly seek their normal level, but cities, like individuals, need water for their growth. Can we afford to stunt the growth of a community by waiting for lower prices? This question has been carefully studied by those best competent to know. Recently a report was made by the New York Board of Water Supply to the mayor of New York, which states "That there are no convincing evidences that labor and materials will be more expensive now than for several years to come" and further makes the suggestion that "many well informed persons are of the opinion that the tendency will be higher and still higher prices for water works commodities". The report closes with the recommendation that the city's interests will be best served by the continuous and speedy prosecution of the water works improvements to their final completion.

Water is fundamental to the growth and prosperity of every community. An abundant supply of good pure water is a city's most valuable asset. Its industries cannot be secured or maintained if the water supply is inadequate.

The Capital Issues Committee of Washington, D. C., in giving approval to water works bonds, has gone on record as to water supplies and their improvements as being an essential improvement, and all worthy projects are meeting prompt approval.

The essential feature in the whole problem to consider, is the responsibility of the water works profession toward the health of the community. Nothing has such a great bearing upon the health of the community as the quality of the water. Can the water boards, mayors, superintendents and engineers afford to defer improvements when that postponement may mean an epidemic of typhoid or other water born diseases? The loss of lives cannot be justified by the saving in dollars.

Webster County Patriot's Fund

One Iowa County Adopts the War Chest Plan for Raising Different War Funds

Thoughtful people everywhere, have been appalled at the immensity of the task before us.

Due to conditions and our form of government, but comparatively small provision is made for the welfare of our soldiers in camp and at the front.

Careful provision and organization is made for clothing, housing, feeding and providing guns and ammunition, with but partial provision for proper medical care, and we may say absolutely no attention given by the government for the moral, spiritual and social elements in the soldier's life.

The fact that the average mother really worries more about the moral, spiritual and social welfare of her boy, than she does about physical misfortune or even death, shows that a crying need must be met, from other sources than the government.

Thoughtless individuals sometimes criticize the government for this, but it is really a wiser course for the government to make use of organizations and individuals already in the field and already trained to efficiency in the work, rather than attempt to build up new and untried methods, with consequent delay and loss of time.

How to best meet this need and finance the work most equitably and efficiently is the purpose of this organization.

It is becoming increasingly evident to many people that the immense sums to be raised by donation during the coming year for such purposes as Red Cross Work, Soldiers' Funds, etc., cannot much longer be successfully raised under methods so far used. The system of isolated campaigns for specific purposes is a waste of time and a duplication of effort, arousing enthusiasm which is soon lost when the single aim has been attained. Their continual recurrence is dulling this enthusiasm, and the burden is falling with increasing weight on a diminishing section of the community. The multiplicity of projects is confusing, even to a willing giver, and worthy objects are likely to suffer through conflict with some that will not bear investigation. Most

important of all, the people as a whole have not yet given equally and heartily. Large parts of the community are skipped under present campaign methods.

Such considerations induced the people of England nearly two years ago, to take a more comprehensive view of the general problem. Since which time, Kenosha, Wisconsin; Utica, New York; Herkimer county, New York; and Jones and Van Buren counties of Iowa and other places have adopted similar ideas, to systematically handle war relief freewill offerings.

Although in operation but a short time in this country, all these communities, report it to be a great success, and are enthusiastic of results. We, of Webster county, have decided to have a similar plan of our own, adapted to our particular needs. Establishing a general fund, under a carefully prepared budget, universally supported by all elements in the community, and carefully administered in accordance with correct and sensible business principles.

Its AIM: To eliminate the wasted effort and expense involved in separate money-raising campaigns for individual purposes.

To avoid conflicting campaigns between equally worthy objects.

To insure against levies which may be unfair in amount, or intended for unjustifiable purposes.

To unite all parts of the community in a reasonable and hearty support of War Relief donations.

To secure an open field for Bond issue and Thrift Stamp campaigns as the sole basis of general public solicitation.

A general fund, administered under the authority of the Webster County Council of Defense, by a special committee of representative citizens. Once established, no other solicitations for patriotic donations to be sanctioned in the community. Bond issues and Thrift Stamps, being an investment and savings and not a gift, will be the only campaigns authorized.

In towns and industrial centers, a universal support of this fund by a voluntary contribution, based upon a minimum of time or percentage of income, to be paid in regular installments, at stated times.

All wage earners, that is all persons working by the hour, day or week subscribing to this plan will authorize their employers to deduct from their pay each week, as a minimum assessment, the equivalent of one-half hours wages, to be paid regularly to the fund, together with an equal (stated) amount on his part as a business contribution.

All others whose incomes are less than \$1,200.00 per year, an amount equal to one-half hours earning per week, based on 26 days to the month and 9 hours to the day.

All persons having incomes of \$1200.00 or more and not wage earners, not being reached by the half hour plan, to contribute a percentage, proportionate to their income, as a pledge to the fund. The minimum of these pledges to be based approximately on the following table:

Incomes \$1,200 and over, but less than \$ 1,800	1¼ %
Incomes 1,800 and over, but less than 2,400	1½ %
Incomes 2,400 and over, but less than 3,000	1¾ %
Incomes 3,000 and over, but less than 4,000	2 %
Incomes 4,000 and over, but less than 5,000	2½ %
Incomes 5,000 and over, but less than 7,500	3 %
Incomes 7,500 and over, but less than 10,000	3½ %

In the rural districts, a placing of each individual in a township into one of six or more classes, as a unit for giving. Apportionments approximately as follows: Class one 30c, class two 25c, class three 20c, class four 15c, class five 10c, class six 5c. The method of classification is optional with each township, according to local conditions.

A systematic disbursement of this fund, by a committee who shall scrutinize every project, with reference to the following tests:

First, is the apportionment for the county, as called for, fair, just and in proper proportion to other counties?

Second, is it authorized by direct or delegated governmental authority?

Third, is it an unjustifiable duplication of other projects to which contributions are being made?

Fourth, is it managed efficiently so that funds contributed are not largely consumed in salaries or overhead expenses?

This fund is the measure of the real patriotism of the community.

If you can't go across—come across.

The full significance of this plan does not lie in the idea of a general fund. Such a solution has undoubtedly occurred to many as the only feasible way of meeting the situation. The method of contribution, and its effect on the patriotic spirit of the community, have a more vital importance.

To a wage earner, the idea appeals because of the knowledge that he is only doing his share, that his employer is meeting his contribution dollar for dollar as a business contribution in addition to his own personal contribution, while other men not so reached are giving a percentage of income, the burden seems light, because it is fair to all.

To business enterprises the burden at first glance seems unjust. However, let them estimate the demands for war relief during the coming year. Every enterprise is considering what its share would be. In the above plan a wage earner working sixty hours a week and contributing half an hour weekly, is subscribing 83-100 of 1 per cent of his wages to the fund. Hence, the employer, assuming that all his workmen contribute on that basis, is giving the same percentage on his payroll as a corporate share of the burden. The business enterprises have felt that this represented no more than would be donated under the old system. Is the trouble of arranging collections any worse than a stream of subscription papers, throwing the establishment into a turmoil every few weeks? Besides, if the men work out their half hour as overtime running, it brings in some extra production—to manufacturing concerns at least.

To those classes of people not comprised in the wage earning class, a chance is given to contribute whatever they can afford, to a fund properly administered, which, when once established, does away with nagging for subscriptions that is getting almost continuous.

The emblem for the patriots' fund, was submitted by the Publicity Committee and unanimously adopted. It being deemed quite essential that some indication might be made by each supporter of the fund and also members of his family, indicating that they are doing their part.

The emblem is significant in every respect.

The American Shield affording protection to our soldiers and sailors, the colors showing its national purpose. The single star on the blue field, indicating a single flag, a single ideal and a single fund for all war relief purposes. The Red Cross prominently brought out showing that the subscriber to the fund is a member of the Red Cross, becoming so automatically when he gives his pledge, and also because eighty to ninety per cent, of the fund, it is estimated will go to the Red Cross.

Two buttons will be used in this campaign. A gold enameled pin for which a fee of ten cents, to cover cost, is asked, indicating that the wearer is a sustaining member. A celluloid pin provided free for each member of the family, dependent on the subscribing member, to indicate, that although not wage earners nor owners of an income, yet indirectly they are doing their share.

Pins lost can only be replaced by going to the secretary, who if he finds the member in good standing will issue new pins in metal at 25 cents each, or celluloid pins at 5 cents each. No one should be allowed to wear a pin unless a bona fide member.

A pledge card will be furnished for the home, the card representing one subscriber. For each additional subscriber in the home a sticker will be provided. For members of the household, who may be members of the Red Cross, but not subscribers to the fund a Red Cross sticker will be provided. This card displayed in the window of the home, with the food pledge card, will indicate that the household is loyally and patriotically supporting our government in its hour of trial.

As one becomes more familiar and understands this plan of freewill offerings for war relieve work, the more he is impressed by its beauty of adjustment to everyday life, and the merging of all elements in the community, in one common purpose, forced on us by the relentless hand of necessity.

Beautiful in its democracy of principle, and equitable and fair to all. Protecting the overly generous of heart against a too lavish distribution of his means, by not asking too much, and by the same token, drawing forth support where ordinarily held back by ignorance of the need, or

pure niggardly selfishness.

Beautiful in its relief of embarrassment, both to the man of small means and the one of large income. The former often embarrassed by the smallness of what he can afford to give, and the latter often over-rated, and asked for more than is just. The man who toils from early until late, the seamstress or the woman of all work, by their pledge of a few cents per week are placed on a par, and doing their share just as patriotically as the man or woman whose good fortune of having an income, permits them to make a pledge running into the hundreds and thousands of dollars.

One flag, one ideal, one fund, truly a noble effort.

It has been decided best, to have all payments made at the bank, where one does business, if possible. Money so paid will be left on deposit to the credit of the patriot's fund committee, to be drawn on, only as the calls come from the national organizations, and then only in proportion to the amount for the county, and the amount on deposit at that particular bank. This will avoid drawing the money out of any of the communities until actually needed, and prevent all going to one center, to a relatively small number of banks. All banks in the county to be depositories.

The actual disbursement of the patriot's fund is handled by the treasurer under the direction and authorization of the Committee of Investigation and Executive Committee of fifteen. This committee is thoroughly representative of every interest in the community which has contributed to the fund. Contributions will be handled on a partial payment basis to provide the necessary flexibility to meet varying, or unseen needs. All local patriotic calls, not only for Red Cross work, but for the local soldiers and sailors funds of various sorts, will be concentrated under the local Red Cross management, and form a part of the budget of that organization, to be honored in full by the fund. National demands of various sorts, such as Red Cross, Y. M. C. A., and K. C., which it is desired to honor, will be treated exactly alike, month by month, proportionately to the total amount of the national campaigns involved.

An Argument Against the War Chest

War Chest Plan for War Activities Opposed in Some Communities

In the May issue of the *American City*, Mr. Adrian R. MacFarland, the secretary of the Chamber of Commerce of Salem, Ohio, explains why the war chest plan was rejected in his city. His statement of the reasons is as follows:

"Allow me to preface my further remarks by stating that I am a commercial organization secretary in a city of 11,000 population, and that, as is the case with the vast majority of my professional brethren, the great burden of campaigning details falls upon my shoulders. Allow me to say also that a war chest would relieve me of a great deal of strain and worry. From a selfish point of view I favor the single campaign idea—but, from the standpoint of the community, in whose destinies the Chamber of Commerce plays a great part, I must admit that I do not greatly enthuse over the once-for-all campaign. To explain:

"There is the objection in the war chest plan that, careful as we may be, we cannot anticipate accurately the future demands of existent war relief organizations, nor can we correctly estimate the number of such societies whose demands or requests may be justifiable. Who, for instance, can tell now exactly what the needs of the Red Cross, the Y. M. C. A., or the K. of C., or many others, will be? Who can tell now but what some unanticipated war need may arise? After the Y. M. C. A. campaign we thought the social and recreational needs of our warring men were sufficiently and adequately provided for, and yet there followed the campaign for the K. of C. war funds and the war camp community recreation fund, with equally urgent and important appeals. Advocates of the war chest will say, 'The fund will provide for all war purposes'. This leads to another objection.

"People, no matter how patriotic or broad-minded they may be, like to know how their one dollars, their five dollars or their thousand dollars are to be used. There are those of us who would give proportionately more to the Y. M. C. A., or the K. of C., or to the Red Cross, than to

other causes. There are many of us who would not care to have even a small portion of our contribution go for certain purposes. The objection may be narrow, but nevertheless it is a serious objection to the war chest plan.

"There is the danger that some organization may desire a share of the fund, which, if granted, would antagonize certain elements in the community. The committee charged with the duty of disbursing funds cannot, no matter how careful or fair-minded they may be, interpret our desires or sentimentalities in the matter. Even though we have a lawyer, a merchant, a manufacturer, a laborer, a Catholic, a Jew and a Protestant, they cannot satisfy the vanity which you and I have in determining how much is our 'bit' in matters of patriotism and sentiment.

"Finally, there is the danger in the war chest plan that, having had its big splurge, the community will drop back into a period of patriotic hibernation; the danger that, its one big effort over, the community will pigeon-hole its patriotism—its spirit—until the call comes again a year hence. This is, as I see it, the great danger and objection to the war chest idea. At the same time it points out the value of repeated campaigns.

"Frequent campaigns, as we see it in Salem, help to develop a spirit of co-operation not produced in one campaign. Such campaigns bring the workers (usually the same ones) in more frequent contact; we learn to know and understand each other, we learn to co-operate and work together for common ends.

"Repeated campaigns also constantly bring to the attention of the people of the community the important fact (not yet sufficiently recognized) that we are at war, and that there are certain obligations which we at home owe to those that have gone. Through the ever-present campaigns we are arousing patriotism; we are awakening in the community (in you and in me) a greater feeling of devotion for our country, our boys and humanity.

"Let us take, for instance, my own community—Salem, Ohio. I am sure that we are far more patriotic, far more wide-awake, than we would have been had we raised a war chest at the time of the first Red Cross campaign. I am sure that the community understands more thoroughly what the war is about—what we are fighting for, what our obligations are. I know that there is a greater spirit of co-operation than there would have been had we had but one campaign—one grand splurge.

"The war chest idea may be more efficient; it may save time and effort; it may save some expense. And yet I cannot help but feel that in this efficiency there is something lacking. Allow me to call it 'Efficiency—Minus'.

"Still, in our city we have attained a certain degree of efficiency, without the drawbacks accompanying the efficiency of the single campaign. At the time of the first Red Cross campaign, we called together a group of about one hundred and fifty of our liveliest wires, almost entirely from the membership of the Chamber of Commerce. An executive committee was appointed. Ten team captains were chosen. These captains in turn selected five men for each team. Definite territories were allotted each team. Our quota was \$10,000. We raised over \$17,000 in two days' campaigning.

"For the Y. M. C. A. campaign, the same men were called together. The teams were enlarged to ten men each. Our quota was \$10,000. We raised \$12,450—twice as good as the country as a whole, despite the fact that we did not have the moral effect of a local Y. M. C. A. At the final luncheon it was unanimously voted to make the organization a permanent one, to take charge of all war relief work.

"Since that time the organization has taken charge of practically all campaigns. It took active charge, for instance, of the Red Cross Christmas drive. With a quota of 2,100, we netted over 4,200 members—200 per cent efficiency. This same organization is taking charge of the W. S. S. campaign and has already considerably exceeded the city's quota. The Liberty Loan campaign is also under the management of the organization.

"So it is that, despite the frequent campaigns

(really now, they are getting easier all the time), Salem has not yet failed to go 'over the top' to a considerable extent. We have learned the value of co-operation; we have aroused the patriotism of the 'Quaker City'; we have awakened a somewhat conservative community to the realization that it has a very important work to play in this war. We have built up a wonderful spirit of the community co-operation which will remain a tremendous community asset after we have won this war.

"We may not have been entirely efficient from an effort and time-saving standpoint; yet we are not blighted by the danger of 'Efficiency—Minus'."

LIBERTY LOAN DRIVE REDUCES MUNICIPAL BORROWING

Nothing shows the effect of the Third Liberty Loan campaign on the investment business more clearly than a comparison of the output of new municipal bond issues in April and earlier months. In the month just closed, the total amount of bonds sold throughout the country was about \$12,000,000, a reduction of over 50 per cent from the March total and the smallest monthly total recorded since August 1914, the first month of the European War. In the first four months of 1918, municipalities have arranged bond issues aggregating but little more than was borrowed in the month of April alone last year.

The following tabulation, compiled from official reports to The Daily Bond Buyer, shows the sales of permanent state and municipal bonds in April and the four months ending April 30 for the last ten years:

	April	Four Months
1918	\$12,005,443	\$ 70,300,515
1917	62,454,686	162,112,754
1916	82,784,283	205,285,781
1915	27,096,703	206,214,201
1914	93,712,104	248,553,428
1913	20,057,324	100,363,505
1912	43,044,046	119,728,843
1911	29,014,595	163,707,266
1910	21,896,025	119,050,918
1909	30,304,494	129,068,404
1908	29,040,717	120,939,588
1907	21,159,003	84,181,026
1906	8,199,344	84,076,990
1905	39,229,891	83,830,605
1904	33,131,999	86,347,160

Valuation of Real Estate in Davenport

By W. T. Waterman, Before the Contemporary Club of Davenport

(Continued from May Issue)

VALUATION OF IMPROVEMENTS

Everyone will agree that an individual with a large house should pay a higher tax than one with a smaller house of the same type and construction. That an individual with a house equipped with all modern conveniences should pay a greater tax than one with a similar house without such conveniences. This applies as well to business buildings.

As far as the writer can learn there has never been any attempt to accurately determine the present value of any improvements on real estate in this city.

While the assessment of real estate is important, it is equally important that a proper valuation should be made of improvements.

At the time the real estate in Los Angeles was valued along the lines I have indicated, the improvements were also appraised. A group of expert construction men, architects, builders, contractors and engineers were employed. The structures were first classified. Material and labor costs were then made up covering five years of varying conditions, and the average costs of all classes, some forty odd, were made up on the basis of the reduplication cost new on the five-year average of prices.

The length of life of structures under varying conditions of maintenance and use was next arrived at, after conferences with experts. This furnished a practical depreciation table in which deduction was made for age and condition. Further depreciation for lack of utility and adolescence were recommended but not adopted.

The building department employed several hundred men familiar with building work and construction to ascertain the mechanical data on each structure in Los Angeles. The building descriptions were recorded on specially prepared slips on which were checked off the details of each building, and on each a sketch was made of the ground floor plan and dimensions. This slip was later turned over to the expert pricers who

made a second inspection of the structure, classified it, judged its condition, and applied the cost factor per square or cubic foot which would reproduce the building new at the time of appraisal. Computers in the assessor's office then made the calculations and extended the various items of costs, depreciation, allowance and the final "present value".

A system of valuation similar to the above has been inaugurated in Columbus, East Cleveland, Lakewood, Berea and Chagrin Falls in the state of Ohio; at Springfield, Joliet and East St. Louis in the state of Illinois; in Denver Colorado; in Houston, Beaumont, Waco, Galveston, San Antonio and Corpus Christi in the state of Texas; in Augusta, Georgia; in Lake Charles, Louisiana; in Portland, Oregon; in Phoenix and Tucson, Arizona; in Redlands and Los Angeles, California; in Lancaster, Wisconsin; in Weston, Ontario, and in Des Moines and Dubuque in our own state.

The cost of the system in the city of Los Angeles proper was \$63,948. This included the cost of valuation of approximately 200,000 buildings. Of this \$63,948 approximately two-thirds was expended for the appraisal of improvements, the remainder in land valuation work.

The results in Los Angeles were to increase the assessed value of land \$93,227,120 or 21.60 per cent, and to decrease the assessed valuation of improvements \$5,576,175 or 3.17 per cent. As a result the tax rate decreased from 94 cents to 81 cents in inside districts and from \$1.34 to \$1.21 in outside districts.

The system to which I have referred was inaugurated in the business district of Des Moines in 1913 at a cost of \$3,000. It has been adopted throughout the entire city of Dubuque at a cost of \$7,500.

An investigation will disclose the following facts with relation to the valuation of real estate in Davenport:

- (1) There is no unit basis for the valua-

(Continued on page 00)

Practical Guarantees for Pavement Maintenance

By Geo. R. Warren, President of Warren Bros. Company

Under this head, rather than state his own views, which might be warped by his interest as a producer of and contractor for street pavements and country roads, the writer will collate extracts from matter written by engineers and others interested in the matter from the points of view of municipalities.

Considering the troubles growing out of the historical and legal experience, it is natural that the subject should have become an important topic of discussion at conventions of Engineering Societies. As early as 1902 the American Society of Municipal Improvements, the active membership of which is composed of over 275 municipal officials of the United States and Canada, had this matter under discussion, in the course of which, Nelson P. Lewis, Chief Engineer of the Board of Estimate and Apportionment of the city of New York, made the following remarks:

"In my judgment there has been a good deal of false reasoning about the proper and best length for guaranty for pavements, especially at the present time. Formerly New York required a fifteen-year guaranty. Brooklyn required a five-year guaranty. After consultation a compromise of ten years was agreed upon as the guaranty period. Personally I advocated the reduction to five years, and my reason for it (and I think most of you will agree with me) was this: As the area of asphalt pavements is extended the traffic becomes less concentrated, more uniformly diffused. When asphalt pavements are first laid in a city, or where other routes are established, an abnormal amount of traffic is brought to them. Besides that, there is at the present time a marvelous change going on in the character of street traffic. Rubber tires are on many of our vehicles, rubber pads are used on horses' shoes, and it would be a rash man who would predict what percentage of vehicles will be propelled without horses in another ten years. The bidder for that pavement is obliged to make his estimate, or make his bid, upon his experience with pavements five or ten years old. In other words, his

guess or his estimate will be based upon a more concentrated traffic and upon more severe treatment. He will not discount the future very much. I cannot but believe that ten years from now there will be still more radical change in the vehicular traffic on our streets. This change is all in favor of the pavement, and I believe that it would be wiser for the city to take advantage of the improved conditions than to allow the contractor to have all of that advantage, and it seems to me that is sufficient reason to advocate a guaranty for five years, at the end of which time I think the problem will be a good deal simplified."

Col. J. W. Howard, Consulting Engineer on roads, streets and pavements, in a pamphlet issued in June 1911, entitled, "Good Pavements on Streets—Not Guaranties on Paper" said:

"A guaranty bond takes a pavement from the control of the engineering department and puts it for a long period as a burden on the legal department of a city, which is an unsatisfactory, slow and uncertain way to convert a poor pavement into a good one; and it is not for the interest of cities to require guaranties beyond such a period as will bring out defects due to neglect or accident of construction and that such defects appear within one or two years. Two years are sufficient to demonstrate the quality of a pavement laid under inspection of a competent man in any city. Taxpayers wish a good pavement on a street and not a bond in a city hall."

From the proceedings of the American Society of Municipal Improvements covering its 1906 convention, the following is quoted:

"The past tendency to depend for good pavements on bonds or guarantees is beginning to cease. The responsibility for good construction and maintenance is being gradually placed upon city engineers. Where the city depends upon a guarantee or bond, this means to transfer the responsibility from the engineer to the legal department of a city. Lawyers do not inspect a pavement and compel a contractor to keep it

in good order. They wait until a pavement has become useless, as, for example, with poor brick and certain kinds of asphalt pavements injured by weather and light traffic, and then try to collect cash damages. The people would prefer to have a pavement on the street rather than a bond or cash damages. Your committee recommends that pavement guarantees be gradually abolished and that city engineers shall be made responsible to secure the best pavements of various kinds called for on different streets and roads."

At the 1907 convention of the same society, John B. Hittell, Chief Engineer of the Department of Streets of the Board of Local Improvements of the city of Chicago, read a comprehensive paper "Guaranty Clause in Paving Specifications—Its History in Chicago", from which the following is extracted:

"As an example of the operation, I have in mind one street which was paved in 1901. The pavement began to disintegrate two years after construction, so that the contractor had to make repairs in 1903. In the spring of 1904, the contractor having gone out of the paving business, the surety company made the repairs, and in the fall of same year the street again became dilapidated, and the contractor and surety refusing to do anything further, the city was obliged to appropriate money and make the repairs. The street was again repaired in the fall of 1904 and in 1905, and in 1906 it became evident that repairing in places was of no avail, and it was then decided, after detailed notes of the street were made and photographs taken, to advertise for the entire resurfacing of the part of the street which had always been the worst, and to repair the remaining part and take a guaranty for this work to extend to the date of the expiration of the original ten year guaranty, viz, 1911. When the surety company was called in it stated, in substance, that it could do nothing until the city had secured a judgment against it and its principal, because the principal had warned it to pay only at its peril, stating that he did the work under city ordinance and specifications, complying in all cases with the instructions of the inspectors and engineers, and that the city accepted the work and thereby relieved him from further obligation."

Samuel Whinery, C. E., author of "Muni-

cipal Public Works", published by McMillan & Company, New York, in the year 1903 in chapter on the subject of Pavement Guaranties, makes the following statement:

"There is another feature of guaranties that must be considered. If a contractor is required to maintain a pavement for a period of years, care must be taken by the municipality to do nothing itself and to prevent others from doing anything that will relieve the contractor from his obligation. For instance, the municipality may not itself, nor may it permit others, to remove and then repair parts of a guaranteed pavement for the purpose of constructing railroads, sewers or other underground structures, since not only may the contractor assert, and often truly, that the adjoining pavement was injured in the operation, but he may claim that defects appearing in the future may be within the part of the street disturbed and repaired by parties other than himself, and for which, therefore, he cannot be held responsible; and it is generally difficult, if not impossible, to locate accurately, after the lapse of a year or two, the repairs made by those other parties

"In view of all the facts it may therefore well be questioned whether, in the end, the municipality is not the loser rather than the gainer through the operation of guaranties on public work

"Assuming that the work contemplated is of an ordinary and well-known kind, or in other words, that it is not of an experimental character; that the quality of the materials used can be readily determined; and that the degree of skill and the character of workmanship necessary to do the work properly are understood by the city's agent; and assuming further that the work will be awarded to a contractor of known character and responsibility and that during its progress it will be properly supervised and inspected by the agents of the municipalities, there should be no difficulty in securing its performance, so far as materials and workmanship are concerned, in a satisfactory manner. Especially may this result be expected when it is remembered that work done under a guaranty is not so likely to be carefully inspected, because the contractor, in that case, is supposed to assume the greater responsibility for the quality of the work.

"In this connection it must be remembered

that there must always be a question as to how far a municipality may dictate to a contractor who is required to guarantee his work. The contractor may claim that if he is to be held responsible for results, he must be free to exercise his judgment as to the best means of securing those results, and that if the municipality assumes to dictate methods he, the contractor, cannot be justly held responsible for results.

"The question of the legality of long-time guaranties has been often raised and deserves careful consideration. Where public work, and particularly street paving, is paid for partly or wholly by special assessments, the laws almost invariably provide that the cost of construction alone may be assessed upon the property owners benefited, and it is either expressly or by implication provided that the cost of maintaining the work, after it is constructed, shall be met from the general fund. It is, therefore, necessary to distinguish between repairs that may become necessary because of faulty materials or workmanship, and those which will inevitably become necessary because of the wear and tear of use, however well the work of construction may have been done. This latter class of repairs may properly be called maintenance, but the guaranty clauses in use in most cities are so drawn as to compel the guarantor to maintain the work in good condition during the period of guaranty, regardless of whether it was properly constructed or not, and it cannot be doubted that the contractor in framing his bid for the work adds to the price of construction a certain sum to cover the cost of such maintenance."

H. L. Collier, Commissioner of Public Works of Atlanta, Georgia, in the year 1907, made the following statement:

"We have to maintain all classes of our pavement, notwithstanding we have paid in advance to have them maintained. As evidence that we have paid we have guaranty bonds—but what do they amount to, pray? Absolutely nothing. And having to maintain, why not prepare for original construction?"

"The pavement within a year begins to unravel; we notify the contractor, he is as dumb as an oyster; and to avoid damage suits we make repairs, present our bills for payment, and again the contractors and the bond company are as

dumb as two oysters. We sue—they smile. At the trial, some years after, they set up the plea that the failure of their pavement was due to the wiggling of the street car tracks. If that doesn't stagger the judge, they declare they carried out the city engineer's specifications to the letter and the fault was his. If the judge still shows signs of vitality, they declare the city gave a utility company, or a plumber, a permit to cut a hole in the pavement and water got under the pavement at this cut and disintegrated the whole pavement, above and below the cut.

"By this time the city engineer, the commissioner of public works and the city attorney have either gone to their long rest, or have in disgust retired from office—on pensions."

In a paper published in *Municipal Engineering Magazine* in September 1911, J. C. Travilla, C. E., Street Commissioner of St. Louis, Missouri, made the following statement:

"The maintenance of a bituminous pavement for a period of five years from the date of its completion usually devolves upon the contractor. This period of time has been fixed by city officials because of their lack of knowledge of the resistance to traffic and temperature changes of bituminous materials.

"With standard specifications and laboratory facilities this guarantee will in time, be reduced to a much shorter period. The guarantee contracts are a source of trouble to the commissioner, since the contractor tends to suit his own convenience in starting repairs. Usually he is inclined to wait until some service corporation cuts are to be repaired in the vicinity of the maintenance work."

COST OF PAINTING BRIDGES

Steel bridges can be painted for \$4.76 per lineal foot, according to the figures of County Engineer Smith of Henry county. Mr. Smith has a well organized crew of a foreman and laborers and the labor cost for 2,485 feet of span painted was \$695.53. Two hundred and seventy-one gallons of paint were used, costing \$1.80 per gallon. It was found that one gallon would paint 9.17 lineal feet of span. With brushes and other incidental costs the total cost per lineal foot of span was found to be \$4.76.

Extracts From Rate Research

WISCONSIN COMMISSION DECISION

Application of the City of Cumberland for Authority to Revise its Electric Rates. Decision of the Wisconsin Railroad Commission Approving the Rates. December 1, 1917.

The City of Cumberland filed with the Commission a petition for authority to change its rates and put in effect rates based on active rooms and area of premises.

The proposed rates are as follows:

RESIDENTIAL RATES

Available for lighting, heating, cooking, refrigerators and all small motors and devices used for household service, up to one horsepower rated capacity.

Rate

9 cents net and 10 cents gross per kilowatt hour for the first 2 kilowatt hours for each room or service unit per month.

6 cents net and 7 cents gross per kilowatt hour for the next 2 kilowatt hours for each room or service unit per month.

3 cents net and 4 cents gross per kilowatt hour for all excess current per month.

Minimum Charge

Net monthly minimum bill for residences, flats and living apartments of three rooms or less than six rooms, 50 cents per month net; for rooms in excess of five add 10 cents for each room.

Determination of Active Rooms

Private garages or private barns may, when connected to residential meters, be served through the one service meter by adding 25 cents each to net monthly minimum bill and counting as one extra unit each as applied to primary and secondary rates in establishing the basis of room count on this schedule, it being understood that on this schedule garrets, closets, cellars, porches and halls under 51 square feet area are not counted as rooms or units, but lights may be connected in said garrets, closets, cellars, porches and said halls, without adding to the monthly bill, or kilowatt hour, to be used on the primary and secondary rates.

Prompt Payment Discount

Bills for service under this class will be rendered on basis of gross rates, providing for a discount for prompt payment by the 10th of the following month of 1 cent per kilowatt hour when said discount does not reduce the amount below the net monthly minimum bill.

COMMERCIAL LIGHTING

Available to all retail and wholesale stores selling merchandise of any kind.

Rate

9 cents net and 10 cents gross per month for the first kilowatt hour per unit of space as hereinafter defined.

6 cents net and 7 cents gross per kilowatt hour per month for the second kilowatt hour per unit of space hereinafter defined.

4 cents net and 5 cents gross for all excess current per month.

Monthly minimum bill and units of space for this class shall be based on the number of square feet of sales floor area, excluding warehouse rooms and cellars which may be lighted without increasing units or monthly minimum bill, but living rooms used in connection with said service will add one unit and 10 cents each to monthly minimum bills for each room in addition to sales floor area. Also small motor service up to and including one horsepower may be used on said service, adding one unit and increasing monthly minimum bill 25 cents.

500 square feet or less of floor space counting as 10 units and 50 cents net, monthly minimum bill and each 100 square feet or fraction thereof up to, and including 1,000 square feet, adding two units and 10 cents additional for each two units to the monthly minimum bill, each 200 sq. ft. or fraction thereof over 1,000 sq. ft. and up to and including 2,000 sq. ft. adding two additional units and 10 cents additional for each two units to the monthly minimum bill, each 300 sq. ft. or fraction thereof over 2,000 sq. ft. and up to and including 3,500 sq. ft. adding two additional units and 10 cents additional for each

two units to the monthly minimum bill, each 400 sq. ft. or fraction thereof over 3,500 sq. ft. and up to and including 5,500 sq. ft. adding two additional units and 10 cents additional for each two units to the monthly minimum bill, each 500 sq. ft. or fraction thereof over 5,500 sq. ft. and up to and including 10,000 sq. ft. adding two additional units and 10 cents additional for each two units to the monthly minimum bill, and each 600 sq. ft. or fraction thereof over 10,000 sq. ft. adding two additional units and 10 cents additional for each two units to the monthly minimum bill, as is illustrated by the following table:

Square feet or less	Monthly Minimum Bill
500 counting for 10 units and.....	\$.50
600 counting for 12 units and.....	.60
700 counting for 14 units and.....	.70
800 counting for 16 units and.....	.80
900 counting for 18 units and.....	.90
1,000 counting for 20 units and.....	1.00
1,200 counting for 22 units and.....	1.10
1,400 counting for 24 units and.....	1.20
1,600 counting for 26 units and.....	1.30
1,800 counting for 28 units and.....	1.40
2,000 counting for 30 units and.....	1.50
2,300 counting for 32 units and.....	1.60
2,600 counting for 34 units and.....	1.70
2,900 counting for 36 units and.....	1.80
3,200 counting for 38 units and.....	1.90
3,500 counting for 40 units and.....	2.00
3,900 counting for 42 units and.....	2.10
4,300 counting for 44 units and.....	2.20
4,700 counting for 46 units and.....	2.30
5,100 counting for 48 units and.....	2.40
5,500 counting for 50 units and.....	2.50
6,000 counting for 52 units and.....	2.60
6,500 counting for 54 units and.....	2.70
7,000 counting for 56 units and.....	2.80
7,500 counting for 58 units and.....	2.90
8,000 counting for 60 units and.....	3.00
8,500 counting for 62 units and.....	3.10
9,000 counting for 64 units and.....	3.20
9,500 counting for 66 units and.....	3.30
10,000 counting for 68 units and.....	3.40
10,600 counting for 70 units and.....	3.50
11,200 counting for 72 units and.....	3.60

HOTEL AND PUBLIC BOARDING HOUSES

Available for lighting, heating, cooking, refrigeration and all small motors and devices for such service, up to one horsepower rated capacity.

Rate

9 cents net and 10 cents gross per kilowatt hour for the first 25 kilowatt hours, plus 1 additional kilowatt hour on primary rate for each bedroom in said hotel or public boarding house per month.

6 cents net and 7 cents gross per kilowatt hour for balance of kilowatt hours up to 100 kilowatt hours per month.

3 cents net and 4 cents gross for all excess current per month.

Minimum Charge

Net monthly minimum bill for service in this class shall be 5 cents for each bedroom plus \$1.00.

Prompt Payment Discount

Bills for service under this class will be rendered on a basis of gross rates, providing for a discount for prompt payment by the 10th of the following month of 1 cent per kilowatt hour when said discount does not reduce the amount below the net monthly minimum bill.

Other schedules are provided for churches, offices, public schools, lodge halls etc.; depots, opera houses motion picture shows, and power.

Commenting upon this change in rates, the commission says:

"There is some objection to the cumbersome of the schedule as filed, especially in view of the size of the utility, but the officials believe, notwithstanding the complexity of the schedule as compared with the present rates, that it can be administered satisfactorily. The object of changing from a rate schedule based upon the 'active load' to one involving the 'counted room' and 'area of the premises' is, first: to secure rates that changes in the efficiencies of lamps and energy consuming devices will not seriously affect; and, second: to eliminate the inspection of premises, which is a cause for complaint by consumers. In other words, schedule involving 'active rooms' and 'area of premises' factors are a practical solution of the difficulty of determining the consumers' demand."

ILLINOIS COMMISSION DECISION

Union Gas and Electric Company, Application for an Increase in Gas Rates. Decision of the Illinois Public Utilities Commission, Granting the Increase. January 16, 1918. Opinions and Orders, Volume 5, p. 205.

In passing upon the petition of the Union Gas and Electric Company for an increase in gas rates to cover increases in operating costs, petitioner stated it was not asking for all the increase to which it thought it was entitled, because it realized the rate should not be made high enough to drive away business. The commission says:

"Where the commission is called upon to

consider increases in rates to meet the extraordinary conditions that now prevail, it is believed to be fair and just to the company if the rates made effective are sufficient to earn all reasonable operating expenses, taxes, maintenance charges, inclusive of the annual requirements to cover accruing depreciation, plus a reasonable return upon the money actually invested in the property under reasonably good management. It is obvious that this allowance can be carefully calculated if the commission is fully informed concerning the actual normal costs originally incurred for the property that is now used and useful in giving the service.

"At this time it is not conceived or conceded to be the duty of the commission to calculate a fair return to the company on theoretical value of properties which are invariably inflated on account of war conditions when appraised according to almost any of the theories of the cost to reproduce them new, less accruing depreciation. Utility companies are at least entitled to a reasonable revenue to compensate them for the sacrifices they have actually had to make in acquiring or constructing the property, but cannot reasonably ask for a high rate of return on an excessive present value such as could very easily be inflated by the application of the theory that the fair rate-making base is to be arrived at by calculating the cost to reproduce the property at present-day prices. It must be remembered that the burdens occasioned by the war are not being carried entirely by the consumers of gas, and while the rates for the service should be just and reasonable to the company and to the consumers of its gas, they must be just to the public that is being served.

"In this case, it has not been possible to ascertain the actual, normal, original cost of the property; and the commission has not been advised concerning the earnings in the past in such detail that it can determine whether or not the company has heretofore secured all the earnings to which it was entitled, including the sums necessary to maintain and protect the investment. * * *

The commission desires to give the petitioner full credit for its excellent management. The examinations made at the various times by the engineering department, and the invariably good reports presented by the service division as the result of its periodical and special investiga-

tions, conclusively prove this gas utility is ably directed in its policies and efficiently managed by its local executive. Where causes of an opposite character have produced poor results the commission has not hesitated to conclude it had cause to penalize a utility by reason of such poor management. A rule of this kind should operate both ways, and it is considered just in this case to recognize, in a substantial way, that good management should not be penalized but ought to be further encouraged. It is realized that a utility can very materially control the cost of production in more ways than one, and if the expense per unit of service is reduced by reason of an increase above the normal in the sales per consumer and per capita, the company should be given some incentive to maintain its good record. Any proof that is made of excellence in the operation of a utility ought to entitle the operators, as well as the holders of the securities, to a reward for their meritorious work."

Valuation of Real Estate in Davenport

(Continued from page 50)

tion of real estate, and without this there cannot be equitable assessments.

(2) The value of alleys adjacent to property have not been considered on any scientific basis.

(3) The valuations of corner lots have not been and are not founded on any equitable basis. The values as established are largely guesswork.

(4) The assessments of real estate adjacent to corners has no sound basis and reflects in large measure merely the personal opinion of our assessor.

A re-adjustment of our real estate values would eliminate all four of the objectionable features above referred to.

The system which has been briefly outlined, if adopted in Davenport, would give:

(1) An equitable basis of valuation in which a common judgment would be exercised in every part of the city.

(2) The assessment of real estate would be simplified and therefore more efficiently and accurately made.

(3) Under this system it would be possible for all interested parties to have a voice in the establishment of the land values.

(4) It would in all probability result in an increased income for the city.

(5) It would bring equity and satisfaction to the taxpayers. In the opinion of the writer it would be well worth its cost.

SPEED REGULATION

In the case of rubber-tired vehicles, speed is an important factor. It is the general experience that light motor vehicles traveling at a speed of 18 to 20 miles an hour are not difficult to cope with. That much injury to macadam road surfaces results from heavy touring cars traveling at speeds of 40 and 50 miles an hour is common knowledge to the highway engineer, where it exists to any great extent, demanding the proportionate cost of bituminous treatment, or the selection of a strongly resistant paving material.

The propelling power of a horse-drawn vehicle is communicated to the road through the feet of the horses. Speed is limited and makes little difference. The abrading effect of the steel tires comes solely from a downward pressure varying with the weight of the load, diameter and width of tire. Self-propelled vehicles, on the other hand, communicate their driving force to the road at the rim of the wheel. While the downward pressure due to weight of load does little injury, the driving force is very great. It is nearly horizontal, tending to tear away the surface of the road, throwing out the binding material and loosening stones. This shearing force increases with the speed—not in direct proportion, but probably in proportion to the square of the speed. Thus, taking 10 miles as a unit of speed, and comparing with speeds of 20, 30 and 40 miles, the shearing force is not merely twice as great at 20, three times at 30 and four times at 40, but instead is four times as great at 20 as at 10 miles, nine times as great at 30 and 16 times as great at 40 miles. At 50 miles an hour, the shearing force on this basis would be 25 times as great as at 10 miles.

Excessive speed is thus exceedingly destructive to improved roads. Motor cars of moderate weight, traveling at a speed of 20 miles an hour, do comparatively little injury to a well-built road. Heavy cars traveling at a rate of 40 or 50 miles an hour do excessive injury which can be provided for only by expensive types of construction. While these types can be adopted

for main highways, as in the case of foundations, the greater net work of minor roads requires speed limitation, in order that heavy construction and maintenance costs may not be unnecessarily imposed. This is the more important at the present stage of road development on this continent when a large mileage must be maintained at low cost while main routes are in course of construction.—Good Roads.

VALIDITY OF ORDER OF BOARD OF HEALTH PROHIBITING PUBLIC GATHERINGS

Community Chautauquas, Inc., owns and gives that form of entertainment known as chautauqua, and made a large number of contracts to give such entertainments in Vermont during the summer of 1917. After so doing, the Board of Health of Vermont made an order prohibiting the holding of fairs, chautauquas, etc., until further notice. The reason of the order was the prevention of the spread of infantile paralysis, then prevalent, on the ground that large general gatherings of people tend to the spread of that disease. The validity of this order was passed upon in the case of *Community Chautauquas, Inc., v. Charles S. Caverly et al.*, 244 Federal Reporter, 893.

The primary question presented was whether the professional opinion of the Board (a board of doctors), honestly exercised, should be overturned by the court on the ground of its unreasonableness. In considering this question the court said: "It is the duty of the court to examine into the facts of every case, and, if a responsible, honest and presumably reasonable body of professional opinion is found on the side of the regulation, it is the duty of the court to uphold it, even though the chancellor should entertain the view of professional dissidents."

The constitutionality of the order was attacked on the ground that its practical effect, as assumed by the parties, was to terminate the contracts which the plaintiff had made for these entertainments. The court disposed of this objection by saying: "That the prevention of disease, or its spread, by any means based on responsible medical opinion, is a competent and constitutional exercise of police power, is a proposition so plain as scarcely to require citation." It was accordingly held that the plaintiffs were not entitled to relief.

National Municipal League

The annual meeting of the National Municipal League will be held June 5 and 6 in New York City in conjunction with the National Conference on War Time Economy called by the Academy of Political Science and the New York Bureau of Municipal Research.

This action was taken by the council of the National Municipal League at its semi-annual meeting in New York City, April 24, after a careful canvass of the whole situation. The Governmental Research Conference will meet with us and possibly some of the other organizations that have heretofore met with us.

The program of the National Conference on War Time Economy includes a discussion of "War Economy and Financing Local Governments", "The Government as Employer", "The Need of a Budget", "The Duties of City and State Governments During War Times", "Executive Leadership in a Democracy".

The League's program will include the discussion of such questions as:

Federal Relations to American Municipalities.

War Time Work of Civic Organizations.

What Are Necessary Municipal Improvements.

State and Local Government in the Light of War Necessities.

A Scheme for Legislative Leadership.

The City Manager Plan as a War Measure.

Re-organized Justices' Courts: An Essential to World Democracy.

The day sessions of the meetings of the National Municipal League on Wednesday, June 5, will be at Greenwich House, Seventh Avenue and Third Street, one of the leading social settlements in New York, of which the directress is Mrs. Mary K. Simkhovitch, a member of our Council.

The tentative program of the session is as follows:

WEDNESDAY, JUNE 5

10 a. m.—Opening session, National Municipal League, Greenwich House.

10 a. m.—Governmental Research Conference, at New York Bureau of Municipal Research, 261 Broadway.

10 a. m.—Civic Secretaries Conference, Greenwich House.

1 p. m.—Luncheon at Greenwich House for National Municipal League, Civic Secretaries.

1 p. m.—Luncheon at Greenwich House for Governmental Research Conference.

3 p. m.—Joint Session, National Municipal League, Governmental Research Conference and Civic Secretaries, Greenwich House.

8 p. m.—Opening Session of War Time Economy Conference, Columbia University.

THURSDAY, JUNE 6

10 a. m.—Sessions of War Time Economy Conference, Hotel Astor.

1 p. m.—Luncheon, Hotel Astor.

7 p. m.—Joint War Time Supper at City Club, 55 West 44th Street.

Subscriptions for the Astor House Luncheon can be sent to Dr. S. M. Lindsay, Kent Hall, Columbia University. For the Supper on June 6, to William F. Howes, 55 West 44th Street. The subscription for the Luncheon at Greenwich House can be paid the day of the luncheon. Moderate prices will be charged for all meals.

Other details will be supplied by the secretary to those desiring it. In view of the shortness of the time for preparation and of the need for economy, no further notice will be sent to members other than this one and the announcement in the May issue of the National Municipal Review just mailed to members.

ROAD OILS HIGHER IN 1918

Quotations on heavy oils made to the Iowa Highway Commission so far this season have been from 8 to 8½ cents per gallon f. o. b. county. Prices during 1917 on the same grades were from 5½ to 6½ cents per gallon.

Special Regulations Venerial Diseases

(Continued from page 42)

Done at the Capitol in the city of Des Moines, this 29th day of May, 1918.

Under rule three as now worded all cases are reported to the local health officer and he makes an investigation, either by consultation with the attending physician, or a personal investigation and the health officer decides whether any particular case shall be restrained and how.

If a person is to be restrained, the case is restrained at home, unless the person is of such a character that it would be a menace to the public health to allow this kind of restraint. If the person has no home or is a disreputable character or refuses to comply with the order of restraint or for any other reason cannot be successfully restrained at home then the health officer should order them restrained in a separate house or detention hospital. The local health officer decides, in each case, whether the person is to be

restrained, whether the person can be safely restrained at home or whether it is necessary to restrain the person in a separate house or detention hospital.

It is the idea of both the military authorities of the United States and of the State Board of Health that this matter be handled with as little publicity and with as little injury to the person afflicted as is possible and still protect the people and especially that class of young men from whom our armies must be obtained.

On the contrary local health officers should enforce the rules to the letter as this is the only way in which this disease can be stamped out.

It ought to be easy to enforce the rules because the state law makes it a misdemeanor to violate any rule of the state or local Board of Health. Anyone violating the rules should be arrested and prosecuted either if he is some bum without a home or is the most prominent physician or leading druggist. We will get nowhere unless the law is enforced and it is best to begin with the physicians.

Cut Out the Foreign Languages

The Use of One Language Will Make Our People a United Nation

Governor Harding has issued a proclamation in regard to the use of foreign languages during the war that should be enforced in every community in the state. The proclamation is as follows:

A PROCLAMATION

To the People of Iowa:

WHEREAS, our country is engaged in war with foreign powers; and

WHEREAS, controversy has arisen in parts of this state concerning the use of foreign languages;

Therefore, for the purpose of ending such controversy and to bring about peace, quiet and harmony among our people, attention is directed to the following, and all are requested to govern themselves accordingly.

The official language of the United States and the state of Iowa is the English language. Freedom of speech is guaranteed by federal and state constitutions, but this is not a guaranty of the right to use a language other than the language of this country—the English language. Both federal and state constitutions also provide

that “no laws shall be made respecting an establishment of religion or prohibiting the free exercise thereof”. Each person is guaranteed freedom to worship God according to the dictates of his own conscience, but this guaranty does not protect him in the use of a foreign language when he can as well express his thought in English, nor entitle the person who cannot speak or understand the English language to employ a foreign language, when to do so tends, in time of national peril, to create discord among neighbors and citizens, or to disturb the peace and quiet of the community.

Every person should appreciate and observe his duty to refrain from all acts or conversation which may excite suspicion or produce strife among the people, but in his relation to the public should so demean himself that every word and act will manifest his loyalty to his country and his solemn purpose to aid in achieving victory for our army and navy and the permanent peace of the world.

If there must be disagreement, let adjustment be made by those in official authority rather than by the participants in the disagreement. Voluntary or self-constituted committees or associations undertaking the settlement of such disputes, instead of promoting peace and harmony, are a menace to society and a fruitful cause of violence. The great aim and object of all should be unity of purpose and a solidarity of all the people under the flag for victory. This much we owe to ourselves, to posterity, to our country and to the world.

Therefore, the following rules should obtain in Iowa during the war:

First: English should and must be the only medium of instruction in public, private, denominational or other similar schools.

Second: Conversation in public places, on trains and over the telephone should be in the English language.

Third: All public addresses should be in the English language.

Fourth: Let those who cannot speak or understand the English language conduct their religious worship in their homes.

This course carried out in the spirit of patriotism, though inconvenient to some, will not interfere with their guaranteed constitutional rights and will result in peace and tranquility at home and greatly strengthen the country in battle. The blessings of the United States are so great that any inconvenience or sacrifice should willingly be made for their perpetuity.

Therefore, by virtue of authority in me vested, I, W. L. Harding, Governor of the State of Iowa, commend the spirit of tolerance and urge that henceforward the within outlined rules be adhered to by all, that petty differences be avoided and forgotten, and that united as one people with one purpose and one language, we fight shoulder to shoulder for the good of mankind.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the state of Iowa.

Done at Des Moines, this twenty-third day of May, 1918.

By the Governor:

W. L. HARDING.

W. S. Allen,
Secretary of State.

A few of the newspapers of the state have criticised the Governor for issuing a proclamation of this kind but such criticisms are simply a play to the prejudices of some of their subscribers. The fact is that so long as a community uses a foreign language, teaching it in its schools,

using it in its churches and talking it on the streets, that community is not an American community, but is a community with a divided loyalty.

It makes no difference whether the language be German, Sweed, Dutch, Bohemian or any other language so long as the children are taught that foreign language in the schools and so long as the preacher uses that language in the church that community or that group of individuals is not and never will be thoroughly American.

It is true that we welcomed these people to America but we did not welcome them with the idea that they were to continue to be Germans or Dutch or Sweed but with the understanding that they were to become Americans. Now is the time to see that they do become Americans and the very first thing necessary is to see that they use the American language.

The town of Ocheyedan has passed an ordinance prohibiting the use of any foreign language within the town and while there might be a question as to the power of a city or town to pass and enforce such an ordinance yet it is worth while to make the effort. At least it will back up the Governor's proclamation and should be enforced together with the proclamation until such time as the courts prohibit its enforcement. The Ocheyedan ordinance is as follows:

An ordinance to promote the welfare, and preserve the peace of the town of Ocheyedan, Iowa,

Whereas, as it has become necessary as a precautionary measure, therefore, be it ordained by the town council of the incorporated town of Ocheyedan, Iowa, that

Section 1. No person shall speak any foreign language within the corporate limits of the town of Ocheyedan, Iowa,

Section 2. Anyone violating the provisions of this ordinance shall, upon conviction, be subject to a fine not to exceed one hundred dollars (\$100.00), and in case the fine and cost imposed for such violation are not paid, the person convicted shall be committed to jail until such fine and costs are paid, not to exceed 30 days.

Section 2. This ordinance shall be in force and effect from and after its passage, and publication in The Ocheyedan Press.

Dated at Ocheyedan, Iowa, this seventh day of May, 1918.

Attest:

F. J. BOYD, Mayor.

J. R. Nelson, Clerk.

Now is the time for everyone to do his share toward making this nation one hundred per cent American. Be an American first, last and all the time. Let us all talk and read and think the same language.



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Through remote French villages resounds the unaccustomed tramp of American soldiers. But a little while ago and these men were in the quiet of their homes in a peaceful country. Today, in a strange land, they are facing the world's bloodiest struggle.

Pershing at the tomb of America's old time friend months ago reported, with true soldier eloquence, “Lafayette, here we are.” And it is for us of the great American democracy to rally all our might to the support of our army and our allies.

From our shores to the battlefields of France are thousands of miles which must be bridged with ceaseless supplies to our troops. Every day calls for action here, no less than there. Cooperate! Sacrifice! These are the watchwords sent over the land by the Government.

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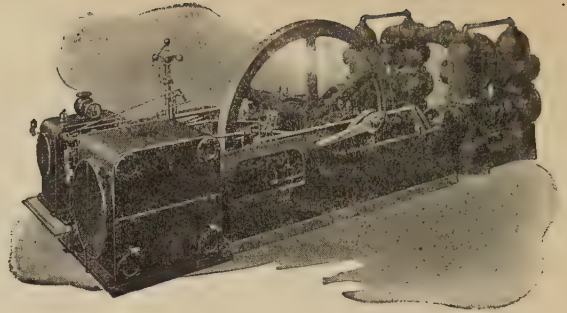


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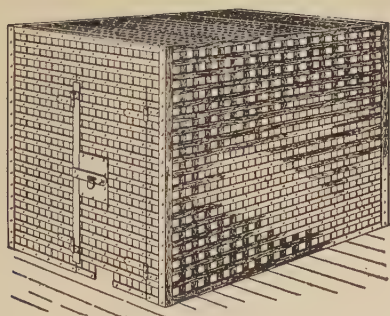
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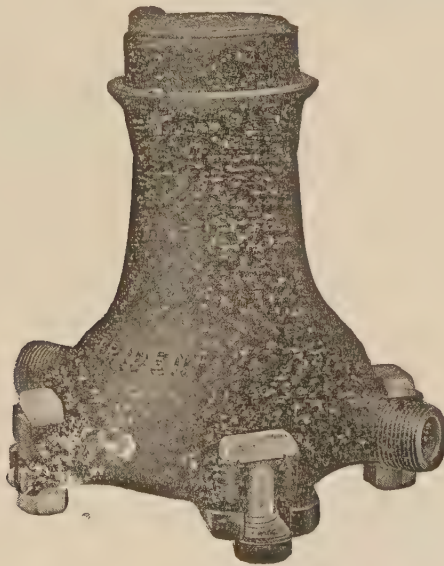
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American Municipalities

July, 1918

Vol. 35, No. 4

Entered as second class matter December 1, 1911 at the Postoffice at
Marshalltown, Iowa, under the Act of March 3, 1879.

Published by

Municipal Publishing Company

Marshalltown, Iowa

Frank G. Pierce, Editor

Subscription Price, - - - \$1.00 per year

Advertising rates made known on application

TO MUNICIPAL OFFICIALS

Municipal officials receiving American Municipalities need have no fear of incurring financial obligations. If you are not a subscriber, either the municipality you represent is a member of one of the Leagues of Municipalities and you are entitled to a copy free, or the copy you receive is a sample copy.

Resolution Adopted by League of Iowa Municipalities

That without evasion or reservation, we do promise that our every word, act and deed shall be in support of our President, our Governor, our Sons and Brothers,—the Sons of the Republic—and their Allies across the sea who are fighting the battle of liberty and freedom, the battle of the weak against the strong, of right against wrong.

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COMMENT

Every municipal official should assist the national government in every way to clean up the social diseases.

There is no question but what a large per cent of our population is affected with some one of these diseases and if they could be eradicated it would in the years to come be worth the entire cost of the war.

A diseased woman allowed to run at will in the vicinity an army camp can incapacitate more soldiers than a German machine gun battery.

The officers of the government will certainly get results because they have adopted the policy of helping those in trouble instead of trying to reform them through fear and publicity.

Local officials should also assist in enforcing the proclamation of Governor Harding against the use of foreign languages.

We want to make this a united nation and the only way to do this is to have all our people use the same language.

We welcome people from all countries but we do not want them to set up in this land little Bohemias, little Germanys, little Italys or any other little communities.

The German community or the Irish community or Dutch Community should be a thing of the past and we should all be Americans.

This crusade for one language and one country should have started years ago and now is the best possible time to carry the movement to success.

If you are an American cut out the foreign languages and talk the language of this country.

If you are a municipal official see to it that it becomes unpopular to talk any language but the language of these good old United States.

Be one hundred per cent American yourself and then see that your people become the same.

If you have any suggestions as to the program for the next annual convention of the League of Iowa Municipalities send them to the Secretary.

Talk one language and one people, as now is the time to make our people one nation instead of a combination of many nationalities.

You will remember with more pride the work you do for the war than any other work you do in your whole life.

Get actively behind every war activity and you will earn the approval of yourself and of your people.

INTERESTED IN ELECTRIC PUMPS

The council of the city of Storm Lake, Iowa is investigating the proposition of installing an electrical pumping outfit to pump the city water. The present steam outfit is in need of replacement either by steam or electricity. It is proposed to install two pumps which can be used either separately or together. The normal days' pumping is about 250,000 gallons at present. If the council decides to install a new electrical equipment, bids will be asked for and the contract awarded to the lowest bidder.

GOVERNMENT HAS GOOD JOBS FOR STATISTICIANS AND ACCOUNTANTS

The United States Civil Service Commission announces that the Bureau of Ordnance of the War Department is in urgent need of statistical experts at \$1,800 to \$4,500 a year; statisticians at \$1,800 a year, and clerks qualified in statistics, clerks qualified in accounting, and clerks qualified in business administration at \$1,000 to \$1,800 a year. These examinations are open to both men and women, except the examination for statistical expert which is open only to men.

Competitors will not be required to report at any place for examination, but will be rated upon their education, training and experience, as shown by their applications and corroborative evidence.

The Commission urges qualified persons to offer their services to the Government at this time of great need. Important war work is likely to be delayed by this shortage of trained help. Further information and application blanks may be obtained by communicating with the United States Civil Service Commission, Washington, D. C., or with the representative of the Commission at the post office in any important city.

PROTECT THE SOLDIERS

In our local war activities we are apt to forget the soldier, but in fact he is the most important force in winning the war. It is more necessary to protect the soldier's health than to raise Liberty loans, sell savings stamps or raise money for the Red Cross. Social officials should, therefore, do everything possible to protect the health of the soldier and the one way in which the greatest results can be obtained is to protect him from venereal diseases. The nation and state are working to stamp out the social diseases and every municipal official should do everything in his power to assist in this work. Do not let false modesty or friendships stand in the way of doing your duty in this regard. If the social diseases can be reduced one half the benefit to the nation will be worth all the billions of money spent for the war. Do everything you can yourself and give your active support to every agency working in this great movement.

COURT DECISION NULLIFIES REFERENDUM

In 1916 the voters of St. Louis, under the initiative, adopted two measures providing for the segregation of white and negro residents. These measures were similar to segregation ordinances adopted by the city councils of Louisville, Kentucky, and several other cities in the south. The constitutionality of these measures was contested in the lower courts and a decision was rendered on November 5th, by the federal supreme court in connection with the negro segregation ordinance of Louisville, Kentucky. The unanimous decision of the court is that this and similar ordinances are unconstitutional; that the police power of a state cannot be so used in violation of the guarantee of property rights under the 14th amendment to the federal constitution. Further, the court holds that such ordinances are unconstitutional because they discriminate against a race, since the interdiction is based on color and nothing else.

Thus it is apparent that laws enacted under the operation of the initiative and referendum must give way, the same as other laws, when found by the courts not to be in accord with the federal constitution.

Read our advertisements, it will pay you.

A FIRE PRETENTION ORDINANCE

The city of Albia, Iowa, has started a movement to cut down the fire risk that should be followed by all cities and towns. The council of Albia, at the suggestion of City Attorney Townsend, recently passed an ordinance providing that all new roofs and all roofs renewed shall be of fire resistive material, rather than of shingles as has been the rule in the past. A very large per cent of fires are caused by the shingles in the roof taking fire, but if the roofs should generally be of fire resistive materials, it cannot help but greatly reduce the number of fires.

The ordinance adopted by the city of Albia in full is as follows:

An Ordinance providing for fire resistive roof coverings and prohibiting the use of wooden shingles and roof coverings in certain parts of the city of Albia, Iowa.

Be it Ordained by the City Council of the City of Albia, Iowa:

Section 1. That hereafter all dwellings and other buildings, including additions thereto, within the limits of the city of Albia, Iowa, except as hereinafter provided, shall be covered with metal, tile, slate, asphalt, composition or other fire resistive shingles or roofings.

Section 2. All flashings and valleys shall be of metal or other fire resistive material properly incorporated with the roofing material.

Section 3. The top and sides of dormer windows shall also be covered with fire resistive material.

Section 4. This ordinance is not to apply to buildings within the present fire limits of the city nor to buildings located on unplatted parts of the city that are 150 feet or more from buildings owned by others.

Section 5. This ordinance is not to be construed to prohibit the repairing of a wooden shingle roof, or other buildings now covered with roofings not of a fire resistive nature, provided the building is not increased in height, but the renewal of such a roof is prohibited. No existing wooden shingle roof, or other roof now covered with roofing not of a fire resisting nature or quality, in need of repairing, shall be repaired or renewed with other roofing than that specified in section one hereof, to a greater extent than 20 per cent of its surface, in any one year.

Section 6. The use of cedar, pine or other wooden shingles or roof coverings, and of tar paper for roofing, is hereby prohibited except as allowed under sections four and five hereof.

Section 7. Any person or persons violating any of the provisions of this ordinance, either as owner or employee, shall be deemed guilty of a misdemeanor and upon conviction fined in a sum not exceeding \$100.00 or imprisoned not exceeding thirty days.

Section 8. This ordinance shall take effect from and after its publication as provided by law.

This ordinance was submitted to the Insurance Service Bureau at Des Moines, Iowa, and this bureau suggests that the ordinance be changed so as to provide that roof covering should be of a class grading as of class A to class C for dwellings and for class A for other buildings. It is explained that in order to get the reduction in the cost of fire insurance that the roof coverings should not be lower than class C under the specifications of the National Board of Fire Underwriters. It would seem that this would be a reasonable proposition because if we are going to adopt ordinances providing for fire resistive roofs, these ordinances should be of such a nature that the property owner will receive a reduction in insurance rates on account of constructing the improved roof.

PENALTY SECTION FOR ORDINANCES

There is a great variation in the penalty classes of ordinances adopted in the state of Iowa, and it has been suggested that if possible a standard penalty clause be outlined that could be generally adopted for all city ordinances.

The power of cities and towns to pass ordinances and provide penalties is found in two sections of the Code.

In Section 680, Code, municipal corporations are granted power to pass ordinances and "to enforce obedience to such ordinances by fine not exceeding one hundred dollars, or by imprisonment not exceeding thirty days".

Section 694 of the Code dealing with this same subject is worded a little different, and is as follows: "Whenever a fine and cost imposed for the violation of any ordinance are not paid, the person convicted may, by the court having jurisdiction of the case, be committed to jail until

the fine and costs are paid, not to exceed thirty days."

The first section of the Code gives municipalities the power to provide for a fine of one hundred dollars or imprisonment not exceeding thirty days. It is very desirable that all ordinances have the provision that any one violating an ordinance may be committed to jail, because in some cases a fine is not a real penalty, as it is no hardship to the person violating the ordinance to pay the fine, while even a few days in jail would be a real penalty. It is also desirable that the provision be embodied that where a person is fined and the fine and costs are not paid, that he may be committed to jail until both the fine and costs are paid. A provision of this kind would allow the collection of the costs as well as the fine in many cases for the violation of the municipal ordinance.

To embody the powers granted by both of these sections in a penalty clause a section has been outlined as below that includes both provisions. This section is as follows:

Anyone violating any of the provisions of this ordinance shall upon conviction, be subject to a fine not exceeding one hundred dollars, or by imprisonment not exceeding thirty days. In case the fine and costs imposed for the violation of this ordinance are not paid, the person convicted may be committed to jail until the fine and costs are paid, not to exceed thirty days.

It is suggested that the city attorneys of the state give a little attention to the sections of the Code providing for penalties for violation of the municipal ordinances, and if they have any suggestions as to the wording of the above section, that such suggestions be sent to the secretary. A penalty clause will be published later meeting the approval of the majority of the attorneys.

At the present time in most cities and towns, there is a great variety of penalties included in the ordinances. In some cases the fine is five dollars in other cases the fine is twenty dollars while in some cases the fine is one hundred dollars. It would seem better that the penalty section provide for a fine not to exceed one hundred dollars, leaving the amount of the fine or penalty to the discretion of the mayor or other magistrate having jurisdiction.

The only necessary variation from this general rule would be the penalty that is prescribed

by the state law for violation of certain parts of the motor vehicle law. Where the motor vehicle law is embodied in an ordinance the penalty provided for in the ordinance must agree with that provided by the state law.

A CITY CHAPLAIN

For several years past a quiet man in clerical garb has called at the mayor's office in Denver at intervals with the request that a pardon be granted some inmate of the city or county jails.

Mayor Robert W. Speer became interested in these petitions, because he found, upon investigation, that they always contained merit. He reached the conclusion that there is a need for a public official to handle cases of those unfortunate who are the victims of untoward circumstances, rather than criminal tendencies.

From this beginning came the recommendation to the city council which was promptly acted upon, that an ordinance be passed, creating a city chaplaincy, with a salary of \$1,200 a year. The duty of this official is to visit jails, hospitals, police courts and public institutions; where the down-and-out members of society are found, to help the deserving regain self-respect, freedom and a job, so that unfortunate individuals may be saved from criminal careers, and society relieved of the burden of their support.

It is a well-known fact that many police officers, thru their constant contact with the criminal classes, become inclined to look with cynicism upon cases that really offer a chance for social redemption. The public defender's office does not quite meet the situation, for it is subject to political influence, jealousy and antagonism. A tactful city chaplain may gain the confidence of the accused where a police officer would be regarded with distrust.

Mayor Speer appointed Jim Goodheart, head of the Sunshine Mission in Denver, to the new office. He was the man who had attracted the mayor's attention to the need, and offered to take the position without pay. As one who has drained the dregs of life and raised himself thru his own efforts to a position of respect and honor in the community, as well as for his knowledge of human nature and his sane judgments, he is peculiarly fitted for the work.

Chaplain Goodheart had barely started upon his work when he was called to France by the government. The city has granted him a six-months' leave of absence for war work, and an assistant will occupy his post while gone.—American City.

Litigation of Sewage Disposal Patents

Present Status of Test Case Brought By Cameron Septic Tank Company

The first patent of the Cameron Septic Tank Company was issued in England, November 8, 1895. Under the laws of that country it had a life of fourteen years, terminating November 8, 1909.

A patent was granted in the United States, October 3, 1899, and, as the United States patent ran seventeen years, this patent would have expired on October 3, 1916, if no other questions were involved. The rule at law is, that where the American patent is identical with a foreign patent previously issued, that the American patent expires at the same time as the foreign patent. The principal questions to be decided in the present litigation are whether or not the United States patent is identical with the English patent, whether the modern sewage disposal systems are an infringement of the Cameron patents and whether the Shelbyville plant does in fact infringe on the Cameron patent.

If the two patents are identical, all cities and towns constructing sewage disposal plants since November 8, 1909, will be freed from payment of any royalty. If the courts find that the patents are not identical, or that the modern plants are an infringement on the Cameron patents, then every city and town that constructed a sewage disposal plant before October 3, 1916, must pay a royalty.

In the judgment of many who have made a study of the patents, and in the judgment of the attorney of the National Septic Process Protective League the patents are identical, and if we can prove this fact the courts will hold that the American patent expired November 8, 1909.

A special committee appointed at the conference of the National Septic Process Protective League in Chicago last August, composed of Hon. E. S. Darlington, West Chester, Pennsylvania; Hon. A. M. Meyer, Barrington, Illinois; Hon. T. B. Bergan, Auburn, New York; Professor R. R. Price, Minneapolis, Minnesota and Hon. F. J. Finucane, Antigo, Wisconsin, reported that they had carefully examined the English and

American patents, and stated that they were satisfied that the same were identical.

The history of this litigation is as follows:

The first case by the Cameron Septic Tank Company was started against the city of Saratoga Springs, New York, in 1906. The defense in this case was based on three claims, that of anticipation of patent, that the process had been previously patented and that it was a process of nature. The question of the identity of the patents was not raised. The United States court of appeals, second circuit, held that the company had a valid patent on the Septic Process, but that the apparatus claims were invalid. This decision placed the Cameron Company in a position to collect royalty from every user of a sewage disposal plant then in operation. This case was finally decided by the court of appeal in 1908.

Following this decision the Cameron Company was very active in pressing its claims for royalty, but comparatively few cities and towns settled these claims.

In the year 1909 suit was started against the city of Knoxville, Iowa. A number of cities joined Knoxville in fighting this case.

In this case it was agreed by stipulation that the two patents were identical. Under these facts the Cameron Company lost in all the courts, the Supreme Court of the United States holding in 1913 that under the facts of the English and American patents being identical, that the American patent expired the same time as the English patent, that is, November 8, 1909.

For a short time after the Knoxville case was finally decided the Cameron Septic Tank Company did not start a new suit, but about four years ago it started a suit against the city of Winchester, Kentucky. In this suit the claim was made that the English and American patents were not identical and that, therefore, the American patent would not expire November 8, 1909, but run to October 3, 1916. In the Winchester case there was little or no contest made, as it was cheaper for Winchester to pay royalty than fight the case, and

judgment was entered against the city.

As soon as this decision was rendered the Cameron Company made claims of all of the cities and towns in the country for royalty, basing their claims on the decision in the Winchester case. Many cities and towns decided that this case had not been properly presented to the court and at a called meeting at Des Moines, March 14, 1916, there was organized the National Septic Process Protective League. At this meeting Dr. H. M. Bracken, executive officer of the State Board of Health of Minnesota, Minneapolis, was elected president and Frank G. Pierce, Secretary-Treasurer of the League of Iowa Municipalities, Marshalltown, Iowa, was elected Secretary-Treasurer.

Soon thereafter a contract was made with Mr. Wallace R. Lane, a Chicago patent attorney, to represent the League as its attorney. Mr. Lane was familiar with the questions involved as he had successfully fought the Knoxville case through all the courts.

Soon after the organization of the League the Cameron Company started suit against the city of Shelbyville, Kentucky. Shelbyville is in the same judicial district as Winchester and the company without doubt believed it would be an advantage to bring any cases in this judicial district on account of the decision in the Winchester case.

Shelbyville was a member of the newly organized League and the League instructed its attorney to defend this suit against Shelbyville, as a test case.

On September 23, 1916, the Cameron Septic Tank Company filed a bill of complaint in equity, claiming that the city of Shelbyville was using a sewage disposal plant which was an infringement of their patent. This complaint set out in full the various men through which the patent has passed, and the previous litigation, but raised the point that the English and American patents were not identical, but that the company had only agreed to the stipulation that they were identical in the Knoxville case for the sake of securing a speedy adjudication of the treaty rights and that this stipulation was not binding so far as other cities and towns were concerned.

The bill of complaint asked for an injunction restraining the city of Shelbyville from making further use of the sewage disposal plant and asking the court to fix the damages that the Cameron

Company have sustained.

In answer to this complaint the National Septic Process League, by its attorney, filed a motion to dismiss the bill of complaint on the grounds that the American patent of the Cameron Company had expired at the same time that the English patent had expired, that is, November 8, 1909, that the United States patent expired more than six years prior to the filing of the bill of complaint and that the bill did not show affirmatively, that the company had any grounds for this injunction or other equitable relief.

On May 26, 1917, Judge Cochran over-ruled the motion to dismiss and stated that sometime in the near future he would hand in an opinion giving his reasons for over-ruling this motion.

The League's attorney thereupon filed a motion that the case be transferred to the law division of the court, except that part of the original complaint in which the Cameron Company claims that the city of Shelbyville had unlawfully associated with the National Septic Process Protective League. The Cameron Company accepted the claims made in this motion and filed two amended complaints, one in equity and one at law, both embodying the same statement of facts except that the equity case asks that the city of Shelbyville be enjoined from continuing a member of the National Septic Process Protective League, and the law case takes up the question of infringements of patents and damages resulting thereto.

The League's attorney thereupon made a motion to dismiss the case in equity, and on April 3, 1918, the Judge so dismissed this case at the plaintiff's cost. This allows the city of Shelbyville to remain a member of the League and allows the League the right to defend the case against Shelbyville.

The case is now about ready to be tried on its merits. The Cameron Company claims that on account of the continued use of the Septic Process by the city of Shelbyville, it has been damaged in the sum of five thousand dollars, and it is bringing suit for this sum.

Of course, the whole case hinges on the law in regard to patents and this is the principal issue in the case. If the National Septic Process Protective League can show that the English and American patents are identical, the chances are that the courts will hold that the American patent

(Continued on Page 88)

Now Is the Best Time to Kill Them

Valuable Bulletin on Fly Question Issued by Merchants' Association of New York

KILL FLIES AND SAVE LIVES

Kill at once every fly you can find and burn his body.

The killing of just one fly NOW means there will be billions and trillions less next summer.

The conditions produced by the long and severe winter have made difficult the removal and proper disposal of refuse and filth accumulations that will facilitate the breeding of disease-germ-carrying flies.

Clean up your own premises; see and insist that your neighbors do likewise.

Especially clean "out-of-the-way places", and every nook and cranny.

Flies will not go where there is nothing to eat, and their principal diet is too filthy to mention.

THE FLY IS THE TIE THAT BINDS THE UNHEALTHY TO THE HEALTHY

The fly has no equal as a germ "carrier"; as many as five hundred million germs have been found in and on the body of a single fly.

It is definitely known that the fly is the "carrier" of the germs of typhoid fever; it is widely believed that it is also the carrier of other diseases including possibly infantile paralysis.

The very presence of a fly is the signal and notification that a housekeeper is uncleanly and inefficient.

Do not wait until the insects begin to pester; anticipate the annoyance.

April, May and June are the best months to conduct an anti-fly campaign.

The farming and suburban districts provide ideal breeding places, and the new born flies do not remain at their birth place but migrate, using railroads and other means of transportation, to towns and cities.

Your friends and members of the family now in the service should be reminded of the danger of the house fly in camps and co-operate with their superiors for the elimination of this deadly pest.

Kill flies and save lives!

RECIPES FOR KILLING FLIES

The United States Government makes the following suggestion for the destruction of house flies: Formaldehyde and sodium salicylate are the two best fly poisons. Both are superior to arsenic. They have their advantages for household use. They are not a poison to children; they are convenient to handle, their dilutions are simple and they attract the flies.

Preparation of Solutions—A formaldehyde solution of approximately the correct strength may be used by adding 3 teaspoonfuls of the concentrated formaldehyde solution, commercially known as formalin, to a pint of water. Similarly, the proper concentration of sodium salicylate may be obtained by dissolving 3 teaspoonfuls of the pure chemical (a powder) to a pint of water.

An ordinary, thin-walled drinking glass is filled or partially filled with the solution. A saucer, or small plate, in which a piece of WHITE blotting paper cut the size of the dish, is put bottom up over the glass. The whole is then quickly inverted, a match placed under the edge of the glass, and then the container is ready for use. As the solution dries out of the saucer the liquid flows into the lower receptacle. Thus the paper is always kept moist.

Other Simple Preventives—Any odor pleasing to man is offensive to the fly and *vice versa*, and will drive them away.

Take five cents' worth of oil of lavender, mix it with the same quantity of water, put it in a common glass atomizer and spray it around the rooms where flies are. In the dining room spray it lavishly even on the table linen. The odor is very disagreeable to flies but refreshing to most people.

Geranium, mignonette, heliotrope and white clover are offensive to flies. They especially dislike the odor of honeysuckle and hop blossoms.

According to a French scientist flies have
(Continued on page 82)

Restricted Zones Enhance Property Values

By Roscoe E. Sawistowsky, City Engineer of Davenport, Iowa

Property owners living in a residential section wishing to preserve the value of their property against the intrusion of business or industrial establishments, should take advantage of the opportunity afforded them by a law passed at the last session of the state legislature giving cities authority to establish a restricted residence district upon petition of 60 per cent of the property owners residing in the district sought to be restricted. This law is chapter 138 Laws of the 37 General Assembly.

It was upon this statute that Alderman Chris G. Behrens and others last year based their petition for the establishing of Main street from Twelfth street to Lombard street as a restricted residence district, in which all business and manufacturing will forever be excluded, or until such time as this street is needed for business purposes, when upon petition of 60 per cent of the property owners, the restriction can then be set aside. This method of establishing restricted residence districts is slow and the results from this patch work method are more detrimental than helpful to the city as a whole.

This law should be amended to give cities in Iowa power to establish city planning commissions who have the power to define zones for residence, business and manufacturing purposes, and to regulate building within the zones in accordance with the uses to which the property would be put.

WOULD NOT HURT VALUES

Zoning would not impair or invade existing property rights or property values. It is not retro-active, but forward-looking. Zoning would leave existing structures intact, and would seek simply to promote the most thrifty and serviceable growth of the city in all directions and for every legitimate purpose.

The aim is to avoid a repetition of such mistakes as in the past have destroyed property values here and elsewhere. This would be accomplished by determining the sorts of uses to which all kinds of real estate might be devoted

with the most profitable permanent results. True residence section would be safeguarded against invasion by factories and stores. Business districts would be encouraged to develop where trade would follow. Industrial establishments would be assigned to zones in which they would receive every advantage of location for their special needs.

The advantages derived from a reasonable districting of the city are many. Every citizen of Davenport would gain in health, comfort and convenience, and have the permanency of his home protected, and, if his business or factory is located here, he can be more sure of the value of his property, if the city were reasonably divided up into restricted building districts.

Property values would be conserved, and the city's revenue from taxation would not decrease in certain areas, as has been the case here in Davenport, where the property values in a residential section have been destroyed by the intrusion of business establishments.

DISTRICTING IS ESSENTIAL

Generally speaking, a building is appropriately located when it is in a section surrounded by buildings of similar type and use. The maximum land values and the maximum rentals are obtained where this segregation and uniformity are most complete. Reasonable districting and zoning is essential to the proper development of Davenport, and for the protection of the property owners and citizens who have a right to demand that adequate light, area and occupancy regulation be imposed throughout the city.

In all our business affairs, we try to plan wisely. We train for a job, or study for a profession, with definite ends in view, if we are wise, and we regard it as a distinct reverse if we are later compelled to withdraw the investment of time and effort and start anew in some other direction toward some other goal.

And just as we try to work in orderly fashion in choosing and following our careers, so we try to look ahead and to plan in detail,

selection of all our cash investments, particularly our investments in real estate, whether we are buying a home, building a store or constructing a factory. We have certain desired ends in view when we do any one of these things, and put our money back of our judgment.

MUST WORK IN DARK

Rentals, too, are investments, and when a lease is signed—and the longer the term the truer this is—the lessor stakes his business judgment, or pledges his comfort and domestic enjoyment on future happenings.

But in all this planning each person, in most cities, has to work partly in the dark, because he can't see inside the minds of other persons who also are planning, each according to his bent and ability. And so we sometimes make mistakes, mistakes that may be costly in terms of dissatisfaction or of money loss.

Nobody knows but only hopes, that he has picked judiciously the place he wants to live in or the place he intends for use as factory or store. The wisest plan may be upset by another plan that somebody else now or later may put into execution.

Plainly, there is something wanting in all this. There is too much haphazard about it. What's the use of putting on your thinking cap and going at the problem with the best intentions in the world if the result, so far as you are concerned, turns out to be a matter very largely of chance after all?

HOW TO SELECT A HOME

Suppose it's a home you are wanting to select—how would you go about fixing upon a good location?

Find a desirable residential section, where a house and lot are within your means, and settle there? Of course! Precisely! But how are you going to find it?

Simple enough, again, you say. First, consult your taste, then look for property restrictions.

But it isn't as simple as that, and a good many home buyers have found this out to their regret. Property restrictions die out with the lapse of time, and all the courts in the country can't bring them to life again, and when that happens, what will happen to your home?

IT HAS HAPPENED

Will some investor, who also has his plan, erect a six-story apartment house on the next lot?

Will he make so much money that another investor will erect another six-story apartment house on the other side? That can happen, and does happen; and the home that once stood free to the sun and air is overshadowed and blanketed.

All this done, not for anybody in particular, but for the good of the community. And the fact that the many conflicting interests in any community can be thus reconciled for the good of all who live in it, is due to the inherent power of every community to protect itself, which power is called the police power.

The zoning of cities is not new. The name comes from the old European walled cities which more than a hundred years ago declared districts inside their walls, which should have six-story buildings, while the zone or ring just outside the walls might have only four-story buildings. Outside that again was another ring or zone which might have only two story residences detached. Napoleon imposed ordinances in the conquered German cities and they have generally been followed all over Europe.

COURTS WILL SUSTAIN

Only recently have American cities found that the courts would sustain reasonable restrictions of this nature. In 1904 the city of Boston limited the height of all buildings within its boundaries by fixing two districts known as District A and District B, which, in general limited the height of buildings above the street level to 125 feet in District A and to 80 feet in District B. These restrictions have been sustained by local and state courts and by the supreme court of the United States.

In 1909 the city of Los Angeles passed an ordinance which virtually divided the city into two districts, one for residential purposes, the balance for commercial and industrial purposes, residences were not prohibited in the second district. These ordinances were different from those of all other cities in that a retro-active provision was included which forced a number of small stores and at least one large industry to move. These ordinances were sustained in the local and state courts and recently by the supreme court of the United States.

Minneapolis, Minnesota, and Berkeley, California, enforce zoning restrictions only upon petition of property owners. Several types of districts for residential and industrial purposes

have been established in these cities.

NEW YORK CITY'S PLAN

New York City has adopted the most thorough zoning plan to be found either in this country or abroad. New York restrictions for height of buildings are based entirely upon street width, being respectively $2\frac{1}{2}$, 2, $1\frac{1}{2}$, $1\frac{1}{4}$ and 1 times as high as the width of the street upon which the building faces, the greater heights being permitted in the financial and commercial districts and the lesser heights applying to the residential districts. Certain modifications permit towers and spires to exceed the height limitations provided these do not cover more than one-fourth the area of the lot, while greater height is permitted if set back from the street line. There are five different classes of bulk or area restrictions which, in general, permit buildings to occupy, in graded steps, from 100% to 30% of the area of the lot they occupy, there being certain additional restrictions governing the size of yards and courts. These area restrictions apply in general to districts which are used for industrial and warehouse purposes, business and commercial structures, tenements and apartment houses, small detached or semi-detached dwellings and large detached single family dwellings. There are five different kinds of use restrictions—(1) residential, (2) business, (3) industrial, (excluding objectionable industries), (4) unrestricted, and (5) undetermined.

The New York restrictions were adopted in July, 1916. No unusual complications have arisen as a result of their adoption. The enforcement of the restrictions met with practically unanimous public approval and already their beneficial effect can be seen in various parts of the city.

Washington, D. C., has restrictions governing the height of buildings which, in general, permit a building to exceed in height the width of the street upon which it faces by 20 feet. In the residence portion of the city buildings are not permitted to exceed 80 feet in height.

By "district" or "zone" is meant a part of a city block or any number of contiguous blocks. In general, the smallest district possible will be all of the lots of a single block which face on one street. The larger districts or zones will contain many contiguous city blocks.

SHOULD NOT BE RETRO-ACTIVE

Zoning restrictions should not be retro-active, or in other words, they should not require the removal of any structure or the prohibition of any use of a building which happens to fall within the zone restricted against such use.

Restrictions on the use of private property have usually been imposed in deeds of sale or by private covenant. Restrictions of this nature are not permanent and are not wholly effectual, since they are often violated and are almost invariably completely abandoned upon their expiration. These private restrictions generally are prepared for the purpose of protecting specific property and are not conceived with the idea of protecting the general welfare of the entire city.

Zoning restrictions prepared by the city are, when reasonable, a justifiable use of the police power in the interest of public health, safety and general welfare. For many years it was considered lawful for a property owner to use his property as he saw fit without any consideration being given to his neighbors.

The courts have now recognized that individual freedom in the use of property is permissible only so far as it is not detrimental or injurious to the health, safety or welfare of the general public.

COMMUNITY COMES FIRST

The hasty exponent of individual liberty who would urge that his home is his castle and that he may improve his property as he pleases, must not forget that for many years now the community has been more and more upheld by the courts in its right over individuals.

No longer can we build spite fences twenty-five and fifty feet high to destroy the light, air and value of our neighbor's property. No more should we be permitted to build anything that will deteriorate, destroy or cause loss to surrounding property values. And there is no loss from any cause so great in American cities as from unguided, jumbled and haphazard building growth.

From this it is quite evident that the courts will not look askance upon any set of restrictions governing the height, size or use of buildings which can clearly be shown to be reasonable and provided they are drawn in such a way as to promote health, safety and general welfare—the fundamental considerations for which the police power can be invoked.

Pavement Guarantee Specifications

By Geo. C. Warren of Warren Bros. Company

In an effort to rigidly fix the conditions of maintenance, specifications were promulgated and adopted by a number of cities beginning about 1897 which, while intended to clarify the situation, in reality made matters worse by exacting conditions which were impracticable of enforcement and if enforced would be unreasonable and unfair to contractors.

Among the types of impracticable requirements of pavement guaranties the following has in the past been frequently adopted by Municipalities and in fact had its birth about 20 years ago in one of the engineering societies. It required:

“(a) No depressions shall be in the pavement at any time during or at the expiration of the guarantee period which are as great as $\frac{3}{8}$ of an inch in depth, as shown by a four foot straight edge.

“(b) During the guarantee period, the pavement shall not lose by compression or wear, more than one half inch ($\frac{1}{2}$ in.) in thickness.

“(c) Not more than two cracks shall appear in a distance of fifty linear feet of street, and all cracks which show disintegration or are more than $\frac{3}{8}$ of an inch wide, shall be repaired.

“(d) If fifty per cent of any section of street requires repairs, the whole section shall be removed.”

I will comment on these requirements as follows:

A. $\frac{3}{8}$ of an inch depression as shown by a four foot straight edge. It is fair to say that no pavement has ever maintained such a degree of excellence for five years that it would successfully stand such a test. I have prepared and tacked on the black board a strip of paper four feet long, one edge of which is cut on a curve, the center of which is $\frac{3}{8}$ of an inch below the ends. You will observe that the depression is so very slight that even the trained eye of the engineer cannot perceive its curvature. How ridiculous it is to make this a test for the surface of the pavement after several years' hard usage. If the specifi-

cation provided that the pavement should have no depressions which will hold water to a depth greater than $\frac{3}{8}$ of an inch, the requirement would have a practical basis for its existence.

B. The wear shall not be greater than one half inch in depth and this regardless of the term of guaranty or character or volume of traffic to which the pavement had been subjected and care by the city in the matter of cleanliness, which has a great bearing on the wear of a pavement in all other respects.

C. Not more than two cracks in 50 linear feet of street. It is well known that under some climatic and sub-soil conditions a pavement may crack to a much greater extent than this and still be an excellent pavement.

D. If 50% of any block requires repairs the entire block shall be entirely removed regardless of how perfect the balance of the block may be.

Taken together it is believed that if these tests were rigidly applied to any pavement which has been subjected to even a moderate degree of mixed vehicular traffic for five or ten years that the pavement would have to be re-laid entire even though the construction were as perfect of its kind as could be produced.

On account of its impracticability this form of guaranty has generally fallen into “inocuous disuse” but still we find the requirement in the specifications of a few cities and their engineers while admitting the impracticability of enforcement, making the absolutely unfair argument that, it gives the city a “whip handle” over the contractor in the matter of repairs.

Guaranties as well as specifications in all other respects should not be so worded that they are impracticable of accomplishment. Otherwise the specifications not only lead to serious legal disputes but are absolutely dishonest however much the engineer may argue that he does not mean to construe them unreasonably. Even if the engineer who drafts such a specification is himself so honest that he will not take unfair ad-

vantage of such a "whip handle" his successor who supplies the requirement at the expiration of a guaranty period may be less honest or more technical in his requirement of enforcement.

In very recent litigation over a paving contract one of the most prominent municipal engineers of the west, acting in the capacity of expert, in criticizing a certain extremely rigid specification, stated that it "cannot be practically complied with, and enables the engineer to heckle any contractor into bankruptcy". On cross examination, this expert engineering witness was shown that the specification which he so severely criticized was in fact copied from a specification originally written by him in his municipal practice only two years before. When urged to explain the difference between his severe criticism of a brother engineer and his own municipal practice in the adoption of identical specifications, he replied in substance "I knew what I was about and only intended to have a weapon in my hand which would enable me to secure proper results". Assuming that he himself is of such an exemplary character that he could suspend the wielding of the weapon at just the dividing line between good construction and rank injustice to the contractor, how about his possibly less high minded successor either in charge of construction or the carrying out of a guaranty contract, and how about the engineers of other cities who either from the highest or lowest motives might follow the lead and reputation of this high minded engineer but who, in application of the specification, should either from technical unreasonableness or dishonesty actually "heckle the contractor into bankruptcy"? Whether in matters of construction or maintenance, one of the first requisites of a fair, honest specification is one which not only clearly expresses the intent but leaves neither the the contractor nor the engineer an opportunity to "wield a weapon" and force any unfair advantage over the other party. Such an official attitude as the one expressed by the expert engineer above referred to is absolutely dishonest. Nothing could do more to engender and encourage dishonesty on the part of contractors. If dishonesty were ever justifiable, then, with such a condition before him, a contractor would be justified in "skimping" his work at every turn.

In my humble judgment it is improper and

dishonest for an engineer to specify more than can be usefully, fairly or practically accomplished, as it is for a contractor to "slide in" four parts of sand to one of cement when the specifications provide for three parts of sand.

The city cannot expect, at the end of any guarantee period, to have a perfect pavement. It cannot expect that a pavement, during a guarantee period, will not wear or that the surface will not become distorted to some extent. If the surface is maintained and turned over to the city at the expiration of the guarantee "in good serviceable condition, and free from any defects that will impair its usefulness as a roadway" it seems that is all the city can reasonably expect, and all it can properly undertake to define in a guarantee.

Now is the Time to Kill Them

(Continued from page 77)

intense hatred for the color blue. Rooms decorated in blue will help to keep out the flies.

Mix together one tablespoon of cream, one of ground black pepper and one of brown sugar. This mixture is poisonous to flies. Put in a saucer, darken the room except one window and in that set the saucer.

To clear the house of flies, burn pyrethrum powder. This stupefies the flies, but they must be SWEPT UP and BURNED.

Recipes for Stables, Barns and Out-of-doors—Borax is especially valuable around farms and out of doors. One pound of borax to twelve bushels of manure will be found desirable as a poison without injuring its manurial qualities or farm stock. Scatter the borax over the manure and sprinkle with water.

Lye, chloride of lime, or copperas (sulphate of iron) dissolved in water, crude carbolic acid, or any kind of disinfectant may be used in vaults.

West Point has purchased sufficient oil and will oil all the streets of the town this year. This is an improvement that every small town can well make. West Point has also completed a new well for its waterworks. That the people are in favor of progress is shown by the fact that all the officers, those responsible for those improvements, were elected this spring without opposition.

American Military Roads

General Goethals Reports in Favor of Concentrated Road Work

"Military Roads" are ordinarily supposed to mean roads like those of France, which Napoleon and other French strategists built a century ago, as means of defensive mobilization of troops and supplies. In that old and narrow sense of the phrase, we have no military roads, certainly none whose location was governed by military consideration with a view of defense against a landing of hostile troops on our shores.

But warfare has changed and many of our American highways have become military roads in the strictest sense. The most expert judgment on this point is rendered by General Goethals of Panama Canal fame. Prior to our entrance into the war, he was acting as state engineer of New Jersey, from which position he resigned to become Army Quartermaster General with direction of transportation. Before leaving New Jersey he submitted a remarkable report to the State Highway Commission, recommending that it concentrate all its available funds this year on New Jersey's military roads. He listed fourteen such routes, which, if properly and uniformly developed and made acceptable for heavy army and civil motor truck traffic, would have great military value in facilitating truck transportation on a large scale and relieving the railroad congestion in hauling supplies to the camps, shipping bases and quartermasters' depots.

All his recommendations were promptly accepted and the first year's levy of a direct tax which, it is estimated will total \$15,000,000, in five years, will be spent in strengthening the weak links in the roads which he singles out as of pressing military importance.

Four of the routes connect industrial regions with New York harbor while other routes are designed at the same time to relieve pressure on New York by facilitating use of other hitherto neglected shipping points. The Quartermasters' depots in Philadelphia, the great ship-building plants near Newark, and the war manufacturing centers that are dotted all over the northern end of the state are taken into consideration. Better

roads are also called for to the forts at Sandy Hook, the naval training station at Cape May and the National Army Cantonments at Camp Dix and Camp Merritt. He pointed out that the only two approaches to the Hudson River were already overburdened with traffic and suggested the regrading of the Palisades Highway so that the steepest grade will be 7 per cent instead of the present 16 per cent.

Altogether the report is a masterpiece by a competent army officer who fully comprehended modern industrial and economic strategy, the great new feature of this war which makes it a contest of nations and industries as well as of armies. While no other state has made so comprehensive and expert a survey of the military feature of their road systems, there is evidence that other jurisdictions are alive to the situation and doing their loyal bit on a generous scale. The Goodrich touring bureau estimates that America will spend \$263,096,610 on roads in 1918 which is 82 per cent more than in the biggest previous year.

Oregon will spend five times as much as last year. It goes for trunk lines into large timber tracts from which must come the timber for aeroplanes and wooden ships. Arkansas has raised its appropriation from \$4,000,000.00 to \$12,000,000.00. Texas and Oklahoma are making high expenditures, the effect of which will be to facilitate activities in great oil and farming regions. Iowa spent \$15,000,000.00 last year and will do it again, extending or improving 6000 miles of highway. Wisconsin is developing a trunk system of roads tapping every town. In the northeastern states a new feature of importance is the methodical use of snowplows to keep the main industrial routes passable the year around for motor trucks. New York has just appropriated \$1,000,000.00 specifically for improving the route from Buffalo to New York City, for inadequate maintenance and lack of snowplow work had impeded army motor transports from the West.

On the other hand, the importance of the subject has not been uniformly appreciated everywhere and there are numerous sections, particularly in the industrial regions, where the national government is being seriously embarrassed by inability to do heavy motor trucking as a means of getting past railroad congestion. The great movement of army trucks for foreign service on their own wheels from Detroit to the seaboard, for example, proved impracticable except by jumping in and making wholesale repairs and improvements at defective points on the route.

One impassable mile, one neglectful community along the road, is enough to keep a great artery out of use for our military and industrial mobilization. Every state and county ought to survey its situation from this angle and do its bit. Actual motor truck traffic is no criterion of a road's possible usefulness. The stream of trucks may be going a longer route at a great cost and delay because a shorter route is in disrepair. Or goods may be going by railroad that could easily be carried on the highways if some backward township were not saving money and suspending road work "on account of the war!" Many a community is buying its quota of Liberty Bonds and at the same time ignorantly embarrassing valuable lines of communication, as effectively as if it had allowed the Kaiser's aeroplanes to demolish the roadways with bombs.

The Goethals' report (obtainable from the State Highway Commission at Trenton) contains enough explanation of various reasons for identifying certain roads as of military importance to furnish a fairly satisfactory guide to road authorities anywhere. Among the questions which the road commissioners of any jurisdiction should consider, are

1. Service to army camps.
2. Service to war plants and to open up sources of raw material such as lumber.
3. Service between cities where the local road is on a route that might be more freely used.
4. Alternative routes to relieve overburdened thoroughfares.
5. Reduction of grades that now compel lightening of loads.
6. Relief to congested railroads.

7. The suitability of the road bed for heavy motor truck traffic.

How to make a road suitable for heavy motor truck traffic is vital at the present moment. Many miles of New Jersey highways have been built of plain macadam and although they were not designed to carry modern truck travel, much has been accomplished in carrying them through by tarviating or otherwise protecting the surface from the thundering motor truck and its ponderous leads.

Much more permanent work has been done using the old macadam as a base for a modern bituminous road.

Camp Dix at Wrightstown, New Jersey, with its miles of interior roadway and its approaches from the old state road shows the possibilities of the penetration macadam method for rapid construction under war conditions. All winter long the camp roads have resisted the pounding of Uncle Sam's heavy truck units with no appreciable wear or deterioration.

The Jersey problems are but samples. Other communities have them but seldom have they been so concretely and clearly stated as in the report of General Goethals.

YOUR ORDINANCES

Have your ordinances been revised within the past six or eight years? If not, they are probably out of date, and in such condition that they would not stand in court, as there have been so many changes in the state laws.

I can furnish a revision of your ordinances, or an entirely new set, prepared to fit your community and conditions. These ordinances will be checked over by a specialist in municipal law, and will be right up to date. On account of doing a large amount of this work, the price will be very reasonable, and you get the benefit of expert services at a low figure.

Have this work done soon, as one case lost in court may cost you much more than a complete revision.

FRANK G. PIERCE,
Sec'y League of Iowa Municipalities,
Marshalltown, Iowa.

Zoning in New York City

By Herbert S. Swan, Secretary of Zoning Committee, New York

The adoption of the zoning resolution in New York marked the inauguration of a new epoch in American city planning. Prior to its enactment, public restrictions regulating the height, use and area of buildings had received but scant consideration in this country. In most cities such regulations were absolutely unknown. Only a few cities like Boston, Los Angeles, Minneapolis and Washington, had had any experience with them at all. Since its enactment, New York has become a Mecca for pilgrimages of citizens and officials who would have their cities profit by her example. Its adoption by New York gave zoning considerable impetus. Fresno, Oakland, Newark, Jersey City, Niagara Falls, Cambridge, Philadelphia, Milwaukee and St. Louis have appointed commissions that are now at work on zoning plans for their respective cities. Berkeley and Sacramento adopted ordinances regulating the use of buildings while the subject was under discussion in New York.

The purpose of this paper will be to chronicle the developments that have occurred in the New York use district regulations up to the end of 1917. As the erection of high buildings has all but ceased on account of the war, the effect of the height and area restrictions has not been very noticeable.

NON-CONFORMING BUILDINGS

In the establishment of residential and industrial districts it is clear that it would be exceedingly difficult, if not impossible,—and if possible most inequitable, to treat existing buildings that did not conform to the proposed regulations in the same manner as those that conformed.

Any existing use should as a general rule be allowed to continue. All existing uses have been established under the sanction of existing or past laws and are therefore entitled to protection. To disturb them would cause much dissatisfaction in the affected quarters and might jeopardize the whole zoning scheme. But changes or extensions of non-conforming uses are to be treated in a manner different from the continuation of

such uses. A new use or an extended use has not acquired a vested right to exist. To prevent its introduction into the district, therefore, presents no question of equity like that of continuing an existing use.

In laying out use districts two principles should be observed so far as changes or extensions of uses in existing buildings are concerned:

(1) Buildings situated in restricted districts and conforming to the use regulations of their district should in the future be obliged to continue to conform to these regulations; and

(2) Buildings situated in restricted districts and which do not conform to the regulations of their use district, when having their use changed, should be obliged to have it changed in so far as possible in conformity with the regulations of the use districts in which they are situated. Where conformity is impossible, the change should be as far as possible in the direction of conformity.

The original section of the resolution treating of non-conforming buildings was so ambiguous as to make it exceedingly doubtful whether it observed either of these principles. In fact the situation was so critical that it threatened the early breakdown of the use district regulations in many built-up portions of the city unless speedily corrected. The amendment adopted by the board of estimate on December 21, 1917, remedying these defects is the most far-reaching one yet made to the resolution.

THE AMENDMENT OF DECEMBER 21, 1917

In the first place, it settled a question that had given rise to probably more misunderstanding than any other in the resolution, viz., Could buildings situated in business districts, designed for business or residence purposes, but which contained a limited amount of manufacturing on July 25, 1916, have their manufacturing use extended throughout the building? The commission on building districts and restrictions clearly intended to keep these buildings in the same class as new buildings erected in business districts, i. e., to limit the manufacturing use of such buildings

to 25 per cent of the floor area, but not to a smaller floor area than the lot area in any case. If the manufacturing use in these buildings might be extended throughout the building, then the protection of the Fifth avenue district against the introduction of more manufacturing in buildings already constructed was practically nil. The amendment makes it plain that buildings which conformed to the regulations of their use district on July 25, 1916, will have to conform to these regulations in the future.

Another serious weakness in the resolution was that it allowed existing nuisance uses to be extended at the expense of non-nuisance uses. With this provision in the resolution there was nothing to protect a restricted district against steady deterioration. If this situation had been allowed to remain, it would to a larger extent have offset the benefits arising out of the prohibition of new nuisances in restricted districts.

A third defect in the resolution of scarcely less danger than either of those described was that it allowed manufacturing and business uses to be extended at the expense of residential occupancies in residence districts. The amendment has the effect of preventing the encroachment of stores and factories situated in the basement or ground floor of dwellings and apartment houses upon the space now used for residential purposes.

A fourth question, which was more or less mooted and which the amendment clarifies, is what changes of use will be allowed when accompanied with structural alterations. The different nuisances are sub-divided into forty-four different groups. For the purpose of continuing a nuisance use structural alterations are allowed to the extent of 50 per cent of the value of the building, exclusive of foundations. There may, however, be no extension of the nuisance. A change of one nuisance into another nuisance not included in the same group is treated as a change of use in which case no structural alterations are allowed.

The amendment also undoes the mischief done by the non-fireproof garage ordinance passed by the board of aldermen in July, 1917, in so far as it affects the zoning resolution. A construction placed upon the resolution by the board of appeals permitted public stables to be changed into garages without a public hearing, provided the cost of the structural alterations did

not exceed one-half the value of the building exclusive of foundations. The commission on building districts and restrictions intended that no stable which required structural alterations should be changed into a garage except after a public hearing. Before the adoption of the non-fireproof garage ordinance by the board of aldermen this rule followed by the board of appeals did not make any great material difference as the fireproofing provisions of the building code were so stringent that very few stables, if any, could be so altered without a larger expenditure than that allowed by the resolution. The new garage ordinance and the rules adopted under it by the board of standards and appeals, however, reduced the fireproofing provisions of the building code to such a degree that practically any stable less than fifty feet high could be changed into a garage. The amendment remedies this situation by requiring the board of appeals to hold a public hearing in each instance.

The intention of the framers of the resolution was to permit any existing use to continue undisturbed whether or not it conformed to the regulations of the use district in which it was situated. "Any existing use", however, appeared in the resolution, when passed, as "any existing lawful use". Correctly understood, this difference in phraseology should have made no difference in the administration of the law, the board of estimate, of course, having no power to declare lawful any use which the legislature had made unlawful. But many persons, including certain officials charged with the enforcement of the law, construed the word "lawful" as being synonymous with the word "legal". As the legality of an establishment frequently depends upon a technical compliance with the statutes or the municipal code of ordinances, the effect of this interpretation, had it consistently applied to the administration of the law, would have been to exclude a large number of non-conforming uses in the restricted districts. A garage, for instance, which had not paid its license fee would have been obliged to discontinue. So would a factory upon which a violation had been filed. The absurd length to which this conception of the law was carried is illustrated by the attempt of an adjoining owner to eject a long-time squatter under this provision of the resolution. The amendment drops the word "lawful" and allows

any non-conforming use existing on July 25, 1916, to continue.

The resolution also allowed a use which contravened the regulations of its use district on July 25, 1916, and which had since been changed to conform with these regulations at any time to be changed back again into a use contravening the regulations of its use district. The amendment corrects this weakness of the resolution by providing that any existing use, which violated its use district regulations at the time of the passage of the amendment and which at any time thereafter is changed into a use that conforms with its use district regulations, may not be changed into another use except in accordance with the provisions of its use district.

GARAGES

Another amendment adopted on December 21, 1917, treats of the erection of garages and stables in business districts. The decision in the case of *Beinert v. Miller* left the powers of the board of appeals in a somewhat doubtful position with reference to garages. The framers of the zoning resolution intended to authorize the board to allow, after a public hearing, the erection of a garage or a stable upon any block which contained a garage for more than five motor vehicles or a stable for more than five horses, the permission to extend to both sides of such a street. The decision in this case, however, seemed to limit the discretion of the board to allow such structures only on the same side of the street. The amendment recifies this terror and makes it plain that a stable or a garage may be erected on either side of street between two intersecting streets that contained a garage or stable on July 25, 1916.

The amendment also clearly defines on what streets the board of appeals may allow a garage or a stable to be erected in a business district. The resolution limits this discretion of the board to such streets as contained a "public garage or public stable" on July 25, 1916. What constituted a "public garage" or "public stable" was not defined. The board has, however, construed a public stable as one sheltering more than five horses and a public garage as one containing more than five cars. The amendment incorporates this definition into the resolution.

Another amendment adopted to the resolution by the board of estimate on September 21, 1917, authorizes the board of appeals to permit

in a business or residence district, after a public hearing, the erection of a garage provided the petitioner files the consents, duly acknowledged, of the owners of 80 per cent of the frontage deemed by the board to be immediately affected by the proposed garage.

This amendment is designed to take care of the garage problem in the outlying sections of the city. In Brooklyn and Queens, for instance, there are large restricted districts that are situated at a great distance from an unrestricted district, or from a business district containing a public garage or a public stable. These sections, which are being developed with private houses or apartment houses, of course, need public garages. This amendment is designed to afford them this convenience at the same time that it protects them against the garage nuisance. Before this amendment was passed the only way in which these neighborhoods could obtain a garage was by petitioning the board of estimate for the extension of the unrestricted districts and this usually opened up a whole street for invasion by every prohibited nuisance.

An effect already noticeable from the adoption of this amendment has been to lessen the number of changes petitioned for in the zoning maps. This is despite the fact that only two appeals have been granted under the provisions of the amendment during the first three months of its operation.

PERMITS ISSUED PRIOR TO ADOPTION OF RESOLUTION

The resolution when passed on July 25, 1916, gave owners to whom building permits had been issued prior to the adoption of the resolution until one year after the approval of their plans, but not later than October 25, 1917, to complete their buildings up to the second tier of beams. This permission applied to all buildings for which permits had been issued whether or not they complied with the particular height, use and area districts adopted by the board of estimate. Permits for buildings on which this amount of work had not been done by the stipulated date were to lapse. In other words, such buildings if erected after October 25, 1917, had to conform with all the requirements of the zoning resolution. This concession was granted to afford those owners who had entered into contracts with architects for drawings or with

builders for labor or materials the full benefit of their plans. The board of estimate did not wish any one who had entered into bona fide contracts or the erection of buildings to suffer financial loss on account of the enactment of the resolution. One year was, however, assumed to be sufficient time for the demonstration of this bona fide intent.

When this period of one year was almost ready to expire a few owners, who had obtained permits for the erection of prohibited buildings within restricted districts before the passage of the resolution, petitioned the board of estimate for an extension of time. To have given a blanket extension to all would have been most unfair to the restricted districts. The civic organizations interested in the enforcement of the resolution at least considered it as a direct attack on the law. On October 19, 1917, after the matter had been hanging in the balance for almost five months, the board of estimate solved the problem in a very satisfactory manner by extending the time one year for the completion of such buildings, the construction or fabrication of which would in the opinion of the board of appeals have been completed on time but for the intervention of conditions beyond the owner's control and impossible for him to foresee. This compromise instead of extending the time of an unknown number of buildings in all parts of the city, at least over a hundred buildings, affected but two buildings.

This solution, needless to say, did not satisfy the defeated owners. They next attempted to get the board of estimate to extend the time of such buildings as violated the height and area restrictions but not the use restrictions. In this attempt, too, they failed, the board of estimate turning the proposition down on December 14, 1917.

A ROLL OF HONOR

The city of Burlington has established a roll of honor to contain the names of all residents who give their life for their country in the present war. This is as it should be. The cities and towns should preserve the memory of their local soldiers and one good way to do this is by maintaining such a roll of honor. Every city and town in Iowa should and without doubt will honor themselves by honoring those who die for our country.

Litigation of Sewage Disposal Plants

(Continued from page 76)

expired at the same time as the English patent. This our attorney confidently expects to do.

In order to prove this it has been necessary to incur a large expense to secure evidence as to the identity of the two patents, as this is a question that must be decided very largely on the expert testimony of engineers who are familiar with the whole question of sewage disposal.

The actual trial of the case will cost a large sum of money and the National Septic Process Protective League must secure this money from those cities and towns in the country that are financially interested in the outcome of the case, because there is no other place from which any funds can be received.

Your city should take the necessary action to pay its share of the expense at once, in order that the League may have ample funds with which to carry the case to the highest court. The rate of dues that has been agreed upon is fair for all concerned, and if every city and town in the country financially interested in this suit will pay its share, the League will have ample funds to meet all its obligations.

The League adopted the policy of incurring no obligations without the money on hand to pay the same, and if the time should come when the League does not have funds to carry on the case, it will be necessary for the League to discontinue the defense and then the Cameron Company would without question, secure a judgment against the city of Shelbyville. Such an opinion, especially if sustained by the Supreme Court, will make every owner of a sewage disposal plant, built before October 3, 1916, liable for such royalty as the Cameron Company may fix.

You can protect your interests, best and cheapest, by paying your share of the expense of defending this case of the Cameron Septic Tank Company against the city of Shelbyville.

VIOLATION OF FOOD REGULATIONS

The city council of Bloomington, Illinois, has adopted a resolution making it a misdemeanor, punishable by a fine not to exceed \$100, or imprisonment not to exceed ninety days, for any one violating the rules and regulations of the United States Food Administration. Bloomington is the first city known so far to take such action.

MUNICIPAL BONDS IN MAY

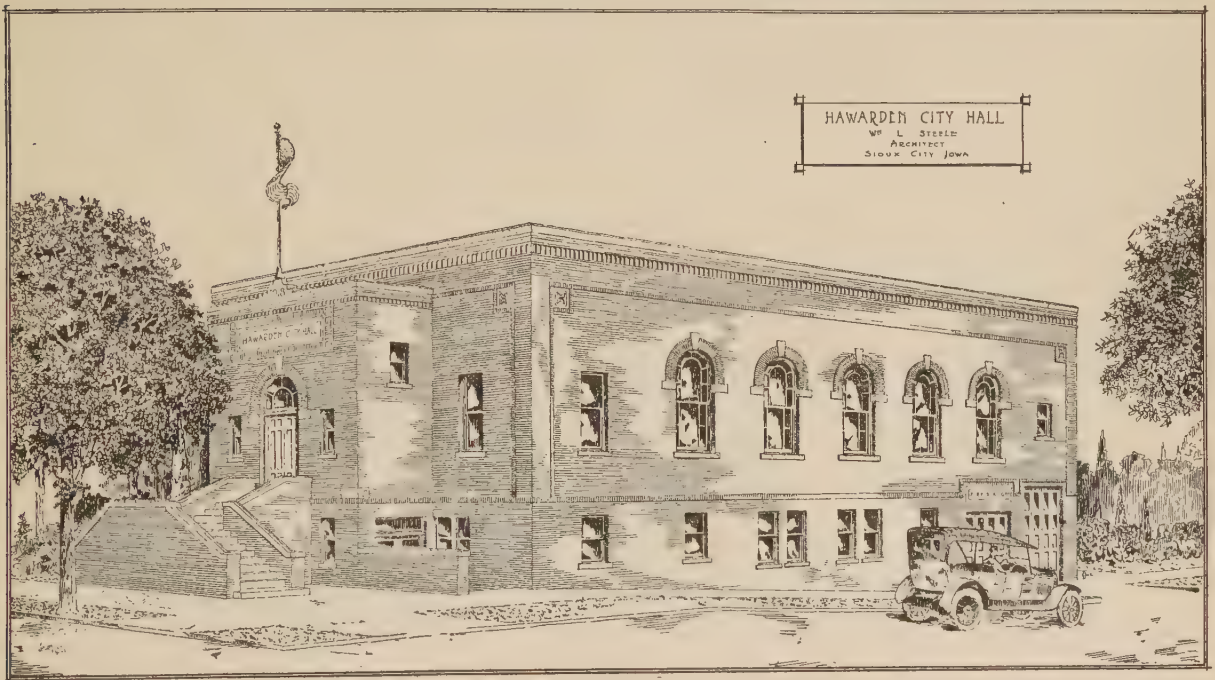
During the month of May states and municipalities negotiated sales of bonds aggregating \$28,012,762, or just about twice as much as was borrowed in April while the Third Liberty Loan drive was on. The May total of sales, according to The Daily Bond Buyer of New York, is the largest for the current year and exceeds by over \$5,000,000 the figure for May, 1917. For the five months ending May 31st, however, a total of only \$110,350,921 bonds sold reported as against \$259,988,806 for the corresponding period last year, thus emphasizing the restrictive influence of the war on the activities of American states, counties, cities and villages.

Due to a curtailed supply and a growing popularity with thousands of individual investors, municipal bonds are now enjoying an excellent market in the last few weeks, their attractiveness

has been greatly enhanced by the announcement from Washington that federal income taxes, from which these bonds are entirely exempt, would have to be much heavier in order to meet increased war expenditures.

The following table, compiled by The Daily Bond Buyer of New York, shows the sales of permanent state and municipal bonds in May and the five months ending May 31st for the last ten years.

	May	Five Months
1918....	\$28,012,762	\$110,350,921
1917....	20,372,439	259,988,806
1916....	29,007,124	239,616,367
1915....	46,164,845	212,469,046
1914....	29,561,053	278,094,481
1913....	95,311,622	195,675,127
1912....	97,593,360	217,322,203
1911....	32,984,658	196,691,924
1910....	13,540,662	132,591,580
1909....	29,904,127	147,972,531



HAWARDEN CITY BUILDING

The city of Hawarden has nearly completed the fine municipal building shown above.

This building was made possible by a law passed by the last legislature very largely through the influence of Representative Stone of Sioux County. Under this law the people of Hawarden voted a special five mill tax for a municipal building.

The building is fifty feet by ninety feet. This first floor will be occupied with clerk's office and vault, council chamber, club room, women's rest room, fire department and jail. The second floor will contain a fine auditorium for general community purposes.

The building will cost complete about \$23,000.00 and is one that the people of Hawarden may well view with pride.

Municipal Swimming Pool

By W. H. Shafer, Civil Engineer, Selma, California

For some time a suggestion had been made with varying degrees of emphasis that Selma needed a swimming pool within the town and under town regulations to take the place of various beaches along Kings River, but no definite action was taken thereon until the early summer of 1915, when Dr. F. M. Williams, our health officer, took the lead in crystallizing the suggestion into action. A fund of \$700 was raised by popular subscription, which was later increased to \$1,300, and plans were prepared and a contract let for the construction of a concrete pool to have a depth of water ranging from three and one-half feet to six feet.

The location chosen was in Selma Park, so no money was required for a site. The pool was built, provided with dressing rooms, bathing suits and towels, and an attendant hired to take charge of the same, enforce necessary rules of use, and change the water daily. To provide a fund for his payment a charge of twenty-five cents was made for use of a dressing room, suit and towel. To those furnishing their own suits the charge was fifteen cents, also the last charge was made for children, with two days each week free to all under 12 years of age.

Water was furnished by the local waterworks at first, but since, the town has had a well drilled and a motor and pump installed which provides the water supply. The pool discharged into the city sewer. Many bathers are accompanied by friends or parents, who themselves do not care to swim, and a spectators' stand of seats was erected in the shade of a large walnut tree, and these seats are always occupied when the pool is in use, and seemingly as many people get enjoyment as spectators as enjoy the pool in swimming. Altogether it has been one of the best enjoyed improvements that Selma has made. It is especially popular with the small boy. There has never been an accident there, except when high diving was allowed, and a fire ladder thirty feet was installed by some enthusiast of

high diving, and then used by a boy not an expert. The result was a badly bruised forehead caused by coming in contact with the pool bottom, and this feature was thereafter barred. During the warm season the pool is in daily use from early forenoon until 9:30 p. m., electric lights having been installed for evening lighting.

In the first use of the pool some expressed themselves as afraid of catching disease in a public pool, but the fact is that so far the Health Board has never been able to trace the source of any disease to the pool. It is the opinion of the health officer that the fresh cool water inhibits the growth of all bacteria, or at least so devitalizes the same that there is practically no danger of disease being spread by that method. On the other hand there is no question that the use of the pool has had a healthful effect upon the users.—Pacific Municipalities.

THE BROADENING MARKET FOR MUNICIPALS

Ever since the federal income tax became an established institution in this country, investors have been gradually learning to buy municipal bonds. The tax-exemption privilege was the quality necessary to take municipals out of the savings banks and trustee investment class and make them appeal to a more general class of bond buyers. In the several years that have passed since the first income tax was levied the education of the investment public to know municipals has proceeded so satisfactorily that if this class of bonds were to suddenly be made subject to federal taxation we doubt if they would suffer but little in market value because even as taxable bonds they would still be recognized by the public as the safest securities issued in the United States, with the possible exception of Liberty Bonds, and since all other bonds would be taxable it would do an investor no good to dump his municipals at a sacrifice with no place to re-invest where the rates would not reach him.—The Bond Buyer.



*Main Street, Pewaukee, Waukesha County, Wis.,
maintained economically with "Tarvia-B."*

Maintaining Roads At Low Cost—

Some people imagine that the smooth, dustless Tarvia roads they see all over the country must be expensive. But Tarvia roads are not expensive; in fact, *they are very low in price.*

The initial cost of a Tarvia road is but little more than that of ordinary waterbound macadam, and the saving in maintenance far more than offsets the difference in the first cost.

Tarvia is ideal for use on roads like the above. A single surface-treatment of "Tarvia-B" made this road durable, smooth and dustless, with an easy-traction surface that will largely decrease haulage charges and greatly save wear and tear on horses, vehicles and motor cars.

Mr. Charles J. Hahn, County Highway Commissioner of Waukesha County, Wis., writes as follows regarding their experience with Tarvia:

"Waukesha County has been using 'Tarvia-B' for the past two years. In 1915 we used about 50,000 gallons, 1916 about 90,000 gallons, and expect to use even more this year. Would say that in 1917 we used 160,000 gallons.

"We find that it is the most economical method of maintaining our gravel and macadam roads. We find that on account of the heavy and fast automobile traffic upon our county roads, if they are not treated with 'Tarvia-B,' they rapidly go to pieces.

"We cordially invite any one to inspect our Tarvia-treated roads."

Send for illustrated booklet showing towns all over the country that are using Tarvia successfully.

Special Service Department

This company has a corps of trained engineers and chemists who have given years of study to modern road problems.

The advice of these men may be had for the asking by anyone interested.

If you will write to the nearest office regarding your road problems and conditions in your vicinity, the matter will have prompt attention.

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OIL FOR EARTH ROADS

The Iowa State Highway Commission in a recent letter states that "from the action that has been taken on applications approved by us so far, that it is very questionable whether the federal authorities will approve any applications for oil to be used on earth roads".

If any city or town expects to do any road oiling this year the officials should take up the question of securing oil with the State Highway Commission at once.

The Highway Commission recently sent out a circular letter with this subject as follows:

"This department is in receipt of a communication from Mr. M. L. Requa, director, Oil Division, United States Fuel Administration, under date of May 13, 1918, requesting that the use of all bituminous road products, such as asphalt, road binders, road oils and tars, be limited to the essential requirements and those uses which will have a direct influence toward winning the war.

"This request is made necessary in order to meet the fuel oil requirements of our Allies, our own army and navy, and our essential war industries. To meet these requirements fully, the use of petroleum and coal in the manufacture of bituminous road products must be restricted to the essential demands.

"The United States is being called upon to a constantly increasing extent for petroleum products, particularly fuel oil, and you will appreciate that this demand must be fully met. For all work subsequent to May 13, in which you desire to use bituminous materials of any character, the following procedure is directed:

"First. An application shall be made to the State Highway Commission on forms which will be supplied by this department.

"Second. The applications will be considered by the Commission, and if considered an essential need, will be forwarded to the director of the Office of Public Roads at Washington, D. C. The director of the Office of Public Roads, Mr. Page, is the chairman of the committee which will pass upon the necessity for the material, and make recommendations to the Oil Division of the Fuel Administration.

"Third. The Oil Division of the Fuel Administration will issue permits for the shipment of material when available, in accordance with

these recommendations.

"Fourth. In passing upon the applications, first consideration will be given to the applications for materials to be used in maintenance and repair work.

"Fifth. It is specifically requested that all new construction not an essential contribution toward the winning of the war, be deferred until further notice.

"We have repeatedly stated to the federal authorities at Washington, that any requests or orders issued which will in any way contribute toward the winning of the war, or assist the administration in carrying out its policies or program, will be met in a spirit of co-operation by the State Highway Commission. It is becoming more and more apparent that there is just one duty and privilege before this state and this nation toward which our every effort must be directed—the winning of the war. We are sending this request to you with the confidence and full knowledge that your local needs for bituminous materials will be carefully considered from a nation wide stand point, and that you will make application for only such material as your city actually needs.

"A recent letter from the Fuel Administration states that the shipment of material of this character must be materially curtailed. The oiling of earth roads or streets is not, except under extraordinary conditions, a war necessity or an urgent necessity.

"Any further information or modifications made by the Fuel Administration, relative to the above directions will be promptly sent you."

CONVENTION

The people of Ames and the Iowa State College are already making arrangements to entertain the delegates to the annual convention of the League of Iowa Municipalities and this promises to be one of the best conventions ever held by the League. You should arrange your business so that you can attend this convention.

If you are really interested in municipal affairs you should take an interest in the candidates for the state legislature as it is of the greatest importance that men be elected to the legislature who are friendly to the best development of the cities and towns.

Classified Advertisements

Officers of members of the League of Iowa Municipalities may run one advertisement each month free of cost.

FOR SALE and immediate delivery—one 14x14 inch Ideal engine, center crank, serial No. 1866, speed 250 to 275 R. P. M., in first class condition. Has had very little use, and that on off peak loads. Also one Westinghouse generator with above engine, 60 K. W., single phase, 1100 volt, 60 cycle, 900 R. P. M., serial number 163567, and one exciter in good condition, complete with belt, brushes and rheostat, also ammeter and voltmeter mounted on marble switch board panel. Equipment also consists of 50 feet two ply, 10 inch leather belting, in first class condition. What is your best possible price on the whole equipment necessary for operation? Address city of Ames, Electric Light and Water Department. 218

FOR SALE—On account of purchasing a combined Street Flusher and Sprinkler, the city of Fort Dodge has two Sprinkling wagons which are being offered for sale at a bargain. The wagons are in excellent condition and will be sold cheap. If interested, write C. H. Smith, Commissioner, Fort Dodge, Iowa.

FOR SALE—On account of the city of Fort Dodge having purchased a combined motor driven Street Flusher and Sprinkler, we are offering for sale at a bargain, one Studebaker horse drawn air pressure Street Flusher. This Flusher has been used three years, but is in excellent working order. It is just what is needed for paved streets and will be sold cheap. Further information and price will be given by addressing C. H. Smith, Commissioner, Fort Dodge, Iowa.

FOR SALE—A good sprinkling wagon, Auston make, at a reasonable price. G. A. Tegeler, Dyersville, Iowa. 418

FOR SALE—One Seagraves horse drawn horse wagon and fire harness, same as new, for sale at less than half price. Address, J. O. Gregg, city manager, Iowa Falls, Iowa.

FOR SALE—All brass Artesian well cylinder 5½ x36 inches with bronze ball valves and 300 feet of 3½ inch Octegan selected ash wood rods fitted with dropped forge sucker rod couplings, suitable for pumping from deep well, using steam head or lever stroke. For particulars, address G. F. Taylor, city clerk, Stuart, Iowa.

FOR SALE—Having recently made arrangements with a power company to furnish electricity the town of Coggon has the following for sale. 1-28HP Bates & Edmonds double cylinder gasoline engine. 1-125 Volt 120 amp. continuous load D. C. generator, 1200 R M P. 1-55 volt 25 amp. continuous load D C generator, 1400 R M P. 1 fully equipped switch board. Everything in good condition. For information write F. W. Lindahl Town Clerk. 106

FOR SALE—Having recently made arrangements with a neighboring town to furnish electric current for lighting and power. The town of Shelby offers for sale a Gas Lighting Plant, complete in good running order will sell at a bargain, as the town has no use for it, address all communications to town clerk of Shelby, Iowa.

FOR SALE—The incorporated town of Milford has for sale 1 Davis carbide feed acetylene gas plant in perfect condition. Model B generator 75 pound capacity. 23 burners with fixturers. 150 feet ½ inch pipe. Will sell at a sacrifice. For information write J. E. Shelledy Clerk, Milford, Iowa.

FOR SALE—One Lukenheimer fire alarm, (steam) whistle, 5x12 inch copper cylinder; also one Schwartz Electric Co., No 3, 10 inch twin gong, both good as new but have no steam plant and can't use them. First best offer of cash gets them. A. W. R. Boller, Fire Chief, Nevada, Iowa. 418

FOR SALE—85 pieces, 12 feet lengths, 16 inch cast iron pipe; 22 pieces about 21 feet length, 4 inch, extra heavy galvanized with couplings; 8 pieces about 20 feet lengths, 4 inch extra heavy galvanized without couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized with couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized without couplings; 150 feet, 6 inch black pipe; one 20 inch valve, hub end; one 16 inch valve, hub end; one 20 inch sleeve; one 20 inch x 20 inch x 16 inch T; eight 4 inch x 4 inch x 3 inch T, hub; twenty 4 inch valves threaded; ten 3 inch valves threaded; ten 4 inch crosses; ten 4 inch Ts; six 3 inch dresser couplings; thirty 4 inch dresser couplings; ten 4 inch saddles and double straps; ten 4 inch to 3 inch galvanized extra heavy reducers; and eight Cook strainers No. 20. The above is all new and will be sold at a bargain. John I. Bell, commissioner, Marshalltown, Iowa. 917

FOR SALE—One Olson Standard Paving Brick Rattler, nearly new, Price \$75.00. This rattler has been used for about a mile of paving and is in good shape. If interested write P. H. Jones, Clerk, Manning, Iowa.

FOR SALE—The city of Colfax, Iowa, offers the following: Two National steam pumps capacity 500 gallon per minute equipped with Mason Regulators. Two boilers tested to carry 85 pound pressure. One Cameron pump 5 H. P. One National pump 5 H. P. This equipment is in good condition. Will sell all or part. If interested write for further particulars or call and inspect.—H. F. Cassidy, City Clerk.

FOR SALE—18 horse power Watrous fire engine, good as new, complete with 30 foot 4 inch suction hose, same being replaced by high pressure water system. Write or wire at once, for full particulars. Russell E. Whipple, chief, fire department. Lehigh, Iowa.

FOR SALE—Bates & Edmonds 35 H. P. upright engine, gasoline or kerosene, 2 cylinder, all complete, in good shape. Have installed transmission line current and have no use for engine. Address Percy Lyon, Clerk, Dike, Iowa. 617

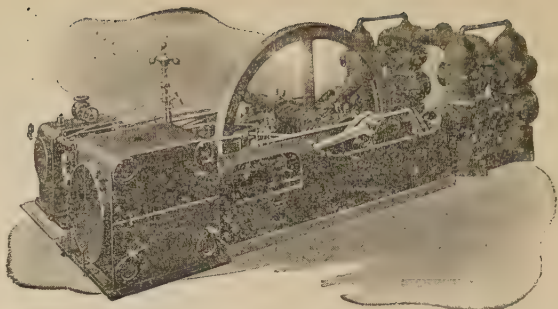
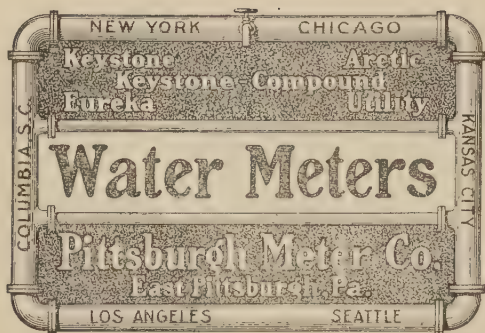
FOR SALE—Having completed arrangements with a neighboring city to furnish our electric current we offer the following at a bargain. One 25 horse power special electric Fairbanks Morse Engine. One 20 K. W. Peerless Generator. 60 Amp. hour battery and switch board instruments. Everything in good condition. Address Town Clerk, Hudson, Iowa

PAINTING—If you have water tower or anything in similar line you want painted, write W. O. Potter, Fredricksburg, Iowa

FOR SALE—Cities wanting or needing a milk laboratory apparatus can get a bargain by addressing, John Berwald, Mayor, Davenport, Iowa. 107

FOR SALE—A number of good gas meters. Will be sold at a bargain. W. D. Hanna, Clerk, Winfield, Iowa. 57

WANTED—Second hand 10,000 to 16,000 gallon storage tank for gasoline. Lock box 235 Sheldon, Ia.



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Hans Madsen, Superintendent, referring to a 4,000,000 gallon pump installed by this Company, says:

"We are highly pleased indeed. The pump performs far beyond our expectations and the guarantee, and the engine works perfectly."

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For Dirt Streets and Roads—One-Fortieth the Cost of Paving

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Write for samples and compare with other road oils, or have chemical tests made. Don't let people ship you a thin watery fluid for Road Oil, but demand to see samples before buying your this year's requirements.

We will contract to sell and apply material, furnishing our modern equipment, making it unnecessary for you to purchase costly equipment for the few days you would possibly use it. If you have modern equipment, let us quote you on your material.

Eliminate Mud and Dust. 37 different contracts with 20 Iowa Municipalities and Counties last year show the large percentage who order additional work within a few months. We will be glad to refer you to this work. Try a few of your streets or roads and you will demand it on all of them.

Have us protect you now on your this year's requirements.

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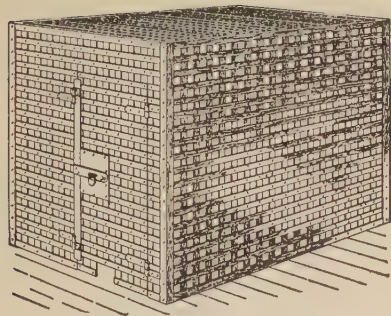
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A single steel cell, placed in your town hall, fire station or other place will be all you need.

A steel cell like the above will accommodate two prisoners. It will answer all your needs

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FRANK G. PIERCE, Secretary
Marshalltown, Iowa

THE INFORMATION BUREAU

OF

The League of Iowa Municipalities

¶ Some of the officials, of the municipalities holding membership in the League of Iowa Municipalities, do not make use of the Information Bureau.

¶ This department is one of the most valuable of the Leagues activities and the city or town that makes use of it, is usually well pleased with its membership.

¶ This is of special value to the smaller cities and towns that do not have a city attorney or have an attorney who has not made special study of municipal law.

¶ Every official of a member of the League is entitled to the services of this bureau and the service is absolutely free.

¶ If some question of law comes up at your meeting, and you are not sure of the law, all you have to do is to write the Secretary and he will set you right.

¶ If you want an ordinance on some particular subject write the Secretary and he will send you what you need.

¶ The Information Bureau is for your use and your benefit.

¶ The League wants you to make use of this Bureau and the more you use it the more you will value your league membership.

¶ The League offers you the service. You should use it.

¶ Address all communications to

FRANK G. PIERCE, Secretary,

May 1918

Marshalltown, Iowa



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American Municipalities

August, 1918

Vol. 35, No. 5

Entered as second class matter December 4, 1911 at the Postoffice at
Marshalltown, Iowa, under the Act of March 3, 1879.

Published by

Municipal Publishing Company

Marshalltown, Iowa

Frank G. Pierce, Editor

Subscription Price, . . . \$1.00 per year

Advertising rates made known on application

TO MUNICIPAL OFFICIALS

Municipal officials receiving American Municipalities need have no fear of incurring financial obligations. If you are not a subscriber, either the municipality you represent is a member of one of the Leagues of Municipalities and you are entitled to a copy free, or the copy you receive is a sample copy.

Resolution Adopted by League of Iowa Municipalities

That without evasion or reservation, we do promise that our every word, act and deed shall be in support of our President, our Governor, our Sons and Brothers,—the Sons of the Republic—and their Allies across the sea who are fighting the battle of liberty and freedom, the battle of the weak against the strong, of right against wrong.

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COMMENT

The program for the next annual meeting of the League of Iowa Municipalities will be formulated during August so if you have any suggestions send them to the Secretary at once.

Many questions of the greatest importance to the cities and towns of Iowa will come up for discussion at this meeting and every municipal official should make a special effort to be present.

The League of Iowa Municipalities is working in your interest and you should give it your active support.

The state legislature has approved the League by passing a law authorizing cities and towns to join the League and send delegates to the meetings of the League.

Your council should send two delegates to the meeting and pay their necessary expenses.

If a man is willing to give his time for the purpose of becoming posted on municipal affairs the people should be willing to pay his necessary expenses.

The convention this year will be more than a municipal convention; it will be a patriotic meeting of the highest order and one that will do you good to attend.

The war agreement entered into by the municipalities and utilities ought to solve many rate questions during these times of changing values and wherever possible a compromise should be agreed to by both parties.

At this time it is not absolutely necessary to fix the rates at just the correct figure and the companies and the public ought each to be willing to make some concessions.

After the war is over and values have again become stable it will be proper to make full and complete investigations and fix prices on these stable conditions.

If you are making any public improvements this year you should get busy now and get them closed up before cold weather.

It costs more to do work in cold weather and the work is usually not so well done so you lose both ways.

Labor is going to become harder to get every

day and this is another good reason for completing the work while you can get the help.

Finish the public improvements you now have started and then let all your laborers and mechanics work on war work until the close of the war.

It has been estimated that there is an annual loss in this country of three billion dollars due to disease and sickness which could be prevented. While to a slight extent preventative measures can be carried on by individuals, the greatest part of such work can only be accomplished by governmental agencies.

SYPHILIS NOT HEREDITARY

In a paper recently published in the *Western Municipal News* of Winnipeg, some interesting facts are published in regard to venereal diseases:

The London Hospital (England) has set itself the task of solving the important question, "Is venereal disease hereditary?" As a result of a series of elaborate and exhaustive tests and experiments, extending over the last few years, the striking conclusion has been arrived at by the hospital authorities, that the opinion entertained by a great majority of doctors, that syphilis is naturally and inevitably hereditary cannot be justified by the results of their investigation.

In a paper read before the Royal Society of Medicine, some time ago, Dr. G. Porret said, that he did not consider there was any proof that the disease was hereditary, he was of opinion "that it was not hereditary any more than was tuberculosis or leprosy".

The view entertained at the London Hospital as a result of these minute and searching tests, is, that syphilis is contracted by the child after birth by contact with the mother, such as in kissing, or suckling. If this is so, a new situation is created, and however painful it may be, it becomes imperative in the interest of the future race that the child should be separated from a syphilitic mother immediately after birth. Giving the results of the experiments conducted at the London Hospital, Mr. Morris, the house governor, said: "In all that has been written in the lay press with regard to syphilis, a great deal of importance has been attached to what was believed to be a fact, that the disease was largely inherited, and was a matter of course passed on from syphilitic parents to their children".

A series of experiments were carried out at the London Hospital to discover what was the incidence of syphilis in the population, and also what was the incidence of syphilis in the newly born.

The first series of experiments showed that—in the East-end of London, at any rate—12 per cent of the population have syphilis. Another and quite independent investigation, showed that 15 per cent of the people who died in the hospital had syphilis. It was afterwards decided, with co-operation of the local government board, to attempt to discover the percentage of children born with the disease; and advantage was taken of the fact that 80 to 100 women are confined, under the care of the London Hospital, every week. An investigation of the blood was made at the time of birth, and the mothers were asked to bring their children to the hospital for further investigation, at periods which varied from two to four months after birth. The conclusion arrived at, and as reported by Dr. Fildes, of the bacteriological department, to the local government board, is as follows:

"Only one baby in 1015 showed symptoms of syphilis at birth. Of these, 660 babies were brought up for re-examination during a period varying from two to four months. Of these 660 babies, three only developed syphilis, as evidenced by a positive Wassermann Reaction. 3.9 per cent of the mothers gave a positive reaction. Out of the 27 mothers who gave a positive reaction only four of these had transmitted syphilis." Dr. Fildes summarises his report by this remark:

"The observations made in the population thus studied, point to the conclusion that the ravages caused by congenital syphilis in infants, are sometimes exaggerated."

These observations entirely agree with those made by two physicians on the staff of the hospital, who have specialized in children's complaints, both of whom recently stated, that after many years of careful observation, they had rarely come across children suffering from congenital syphilis.

Be sure that you are as efficient as you can possibly be as your people are entitled to your best service.

War Board of Conciliation

The Municipalities and Utilities of Iowa Adopt Rate Plan as War Measure

At the meeting of the utilities and municipalities held at Des Moines July 26 a plan was adopted to handle rate questions during the war.

The representatives of the municipalities held a meeting July 24 and after full discussion appointed a committee of nine to formulate a plan to present to the joint meeting the next day. This committee membership was as follows; O. M. Brockett, Des Moines; T. J. Bray, Oskaloosa; Guy J. Tomlinson, Cherokee; F. J. Rall, Cedar Rapids; J. F. Ford, Fort Dodge; G. W. Kephart, Sioux City; H. A. Smith, Dunlap; J. F. Gutz, Pomeroy and Wells Dewell, Woodbine.

This committee reported a plan to the municipalities on the morning of July 26 and after some discussion the plan was approved and a committee of five appointed to meet with a committee of the utilities to endeavor to agree on a plan that would be approved by both factions. This committee was composed of F. G. Pierce, Marshalltown; G. J. Tomlinson, Cherokee; T. J. Bray, Oskaloosa; G. W. Kephart, Sioux City and G. M. Brockett, Des Moines.

The utility representatives appointed as their committee W. G. Dows, Cedar Rapids; Wm. Chamberlain, Cedar Rapids; Jansen Haines, Des Moines; Emil G. Schmidt, Des Moines and Chas. S. Bradshaw, Des Moines.

The combined committee adopted the plan presented by the municipalities with a few minor changes in the wording.

After a lengthy discussion the combined committee selected the five men to compose the Board of Conciliation and inserted these names in the report which was then adopted by both the utilities and the municipalities. This report is as follows:

"To the joint convention of municipalities and utilities:

Your committee, composed of five members appointed by the League of Iowa Municipalities and five members appointed by the public utilities of the state of Iowa, hereby recommends

a plan for the creation and operation of a Board of Conciliation to investigate and settle controversies arising between municipalities and public utility owners, and respectfully report that after deliberate discussion on the matter they unanimously recommend the adoption of the following plan:

1. That the Board of Conciliation for the state shall be composed of five members; one engineer, one lawyer, and three other persons, one of whom shall be selected by said board as chairman, and in acting in any controversy the chairman and two other members of the Board to be selected by him shall act.

2. The members of the board shall be: Mayor J. F. Ford of Fort Dodge, Dean Wm. G. Raymond of Iowa City, Ex-judge Clarence Nichols of Vinton, Mayor Truman A. Potter of Mason City and J. H. Ingwersen of Clinton.

In case of vacancy or the inability of any to serve, successors to be selected by the committee making this report.

3. This Board of Conciliation shall act whenever requested by either party in any controversy arising between any municipality of this state and any public utility or owner doing business in such municipality, and it may so act in cases where suit thereon is pending if requested by both parties.

Said board shall hear each controversy in a brief, informal way, and may call for such evidence and matters that it may desire, having regard for economy of time and expense.

This committee does not believe that said board should hold formal meetings at which witnesses shall be examined and cross-examined and evidence received as in court or before a master in chancery, save in exceptional cases, at the discretion of the commission; but that said board should prescribe general rules with reference to the showing to be made to the parties to any controversy coming before it, requiring the same to be prepared in advance and submitted in written form, and that the investigation and report

shall be made in a summary manner.

Whenever requested, the board may hear arguments.

4. Each member of the board shall receive twenty-five dollars (\$25.00) per day, and actual expenses, when acting as hereinbefore provided for; that the fees and expenses of said board be paid one-half by the municipality and one-half by the public utility interested; that no cost or expense of any kind except those above mentioned shall be taxed or considered in any case, except by agreement of the parties in the given case.

Your committee recommends the creation of such a Board of Conciliation as a war measure only for meeting present emergencies, and that said board shall pass out of existence at once upon the close of the present war."

As to the notification of the members of the commission so chosen, it was agreed by motion that Judge Wade of the Southern District of Iowa, Judge Reed of the Northern District of Iowa, and the chairman of the joint convention, J. B. Hungerford of Carroll, member of the State Council of Defense, should each individually notify the members selected, and that in addition the secretary of the meeting, Henry W. Brandt, should provide each member of the commission with a certified copy of the complete verbatim minutes of the joint conference.

STREETS TO ACCOMMODATE TRAFFIC

Too much attention cannot be given to the proper design of streets. Too often is a street laid out with no provision to accommodate an increase in traffic. As a result traffic must accommodate itself to the street, resulting in a loss of time, the aggregate of which is enormous.

A city engineer, in determining the width of a new street, should be careful to allow liberally for possible future increase in traffic. In some instances the money available may not be sufficient to pave to the full desired width. This may be overcome by leaving an unpaved parkway in the center. It is not expensive and gives an attractive appearance.

Engineers are too apt to follow the practices as set by their predecessors, rather than to strike out on new and improved lines. A curb radius of a foot and a half may have been satisfactory for horse-drawn traffic, but with automobiles hav-

ing a turning radius of about 14 feet, a curb at an intersection should have a radius of not less than 10 feet, preferably much more.

Neither should we lose sight of the advantages to be gained by giving a curb the proper batter, and seeing that the intersection of the curb with the pavement is properly rounded. This point is an important one in the design of streets, for it saves much wear on the tires and rims of automobiles which come in contact with the face of the curb if it does not slant away from the pavement. The rounded gutter line provides a more sanitary pavement for the reason that dust and dirt do not accumulate and are easily removed.

The whole problem of the design of streets must be viewed from the standpoint of accommodating traffic, rather than making traffic accommodate itself to the street. Wider streets, easier turns, and battered curbs are three most important points to be considered in the whole problem of street layout.—Concrete Highway Magazine.

A REAL PENSION QUESTION

Joseph Haag of New York, secretary of Mayor Hylan's Commission on Pensions, has submitted a report proposing to establish a sound pension retirement plan for all employees of New York City. It is similar to that adopted for teachers and provides that the cost be borne about equally by the city and the city employees.

Mr. Haag declares that unless the legislation which he proposes is adopted, "the city will shortly be struggling under a budget item of approximately \$18,000,000 a year for pensions alone, even though the thousands of clerks, laborers and mechanics in the city service are not adequately covered by pension benefits."

There is nothing more important for the successful prosecution of the war, particularly if it lasts for years, than that every worker and potential fighter in this country be kept at his maximum producing or fighting capacity. This means that public health is of the first importance as a war measure.

Whenever possible buy of our advertisers as it is only by the support of our advertisers that we are able to publish American Municipalities.

Municipal Tax Levies in Iowa

Different Taxes Authorized by the Laws of the State of Iowa for Towns of State

TIME TO MAKE LEVIES

The first sentence of Section 902 Supplement of the Code reads in part:

"All assessments and taxes of every kind and nature levied by the council, except as otherwise provided by law, shall be certified by the clerk on or before the first Monday of September, to the county auditor and by him placed upon the tax list for the current year."

In order for the clerk to certify the levy to the county auditor in accordance with this provision the levy of taxes should be made some time before the first of September.

ASSESSMENT AND TAX LEVY

Property is assessed for taxes beginning January first of each year and as soon as the assessor completes his assessment the council should set as a board of review and equalize the assessments. As soon as this work is completed the assessors' books are turned over to the county auditor. The work of the local assessor and the local board of review should be completed before June 1st because section 1375 of the code requires the board of supervisors to adjust the assessment of the several townships, cities and towns at their regular meeting in June. On the completion of this work by the county board of review the assessments are certified to the state auditor, and the executive council, acting as a state board of review, adjusts the assessment of the different counties in July of each year, certifying the correct assessment back to the county auditor before the first Monday in August.

It is not now necessary to wait until the values are adjusted because under the provisions of Chapter 343 laws of the 37 General Assembly a new procedure is outlined in regard to the levying of taxes.

Under section 1 of this act the rate shall be based on the adjusted taxable valuation for the preceding year. The tax is levied in mills as heretofore.

Section 2 of this act provides that the clerk shall figure out the sum of money the tax levy in

each case will raise, based on the adjusted value of the preceding year, and that this sum of money will be certified to the county auditor.

The resolution of the council making the levy should be about as follows:

A RESOLUTION

Be it resolved by the council of the town of, Iowa.

That there be and is hereby levied for municipal purposes upon all taxable property within the corporate limits, as taxes for the ensuing year and for the purpose herein designated, the following number of mills on the dollar, to wit.

. . . . mills on the dollar for the general fund to defray the general expenses of the city.

. . . . mills on the dollar for the sewer fund for the purpose of maintaining and extending the sewer system.

. . . . mills on the dollar for a waterworks fund for the purpose of paying the expenses of running, operating and repairing water works.

. . . . mills on the dollar for a lighting fund for the purpose of paying the expense of running, operating and repairing electric light plant.

(Run here other special taxes you desire to levy.)

. . . . mills on the dollar on all tracts of land of over ten acres in extent used for agricultural purposes as a road fund for the purpose of improving and maintaining the roads.

Be it further resolved that all property within the corporate limits of said town is within the limits of the benefits and protection of said tax levies.

Be it further resolved, that the clerk is hereby ordered to certify the sums of money the above tax levies will amount to in money, to the county auditor on or before the first Monday in September, to be placed on the tax list.

., Mayor.

Attest:

City Clerk.

CERTIFICATE TO AUDITOR

After the resolution for tax levy is passed

the clerk should at once figure up the sum of money each tax will raise based on the preceding years taxable valuation and certify these sums to the county auditor. The form of this certificate should be about as follows:

RESOLUTION

State of Iowa, County of....., }
Incorporation of....., } SS.

To the County Auditor and Board of Supervisors of..... County, Iowa:

I,, Clerk in and for the incorporated town of..... in said county of, Iowa, do hereby certify, that at a regular (a special) meeting of the Council of said town held as provided for by law, on theday of.....19...., that the following taxes were voted and levied for the year 19... on all of the taxable property of said town, except such as is hereafter provided for below:

General Fund \$.....

Grading Fund \$.....

Improvement Fund \$.....

(Run other funds.)

A Road Tax of.....dollars on the taxable valuation of the following described parcels or tracts of land of over ten acres each, within the corporate limits of said town, not subject to General Incorporation taxes.

Given under my hand and seal of office in.....this.....day of.....19....

.....

Town Clerk

The taxes levied in one year are paid the next year and make up the income of the town for the succeeding year.

GENERAL FUND

The first tax authorized is the general fund tax authorized by section 887 of the code: "The council of each city and town shall levy a tax for the year then ensuing for the purpose of defraying its general and incidental expenses, which shall not exceed ten mills on the dollar".

The council can levy up to ten mills for the general fund and if this will bring in enough revenue to pay the running expenses this is all the tax that should be levied. Experience has shown, however, that this general fund will not bring in enough revenue to pay all of the expenses, so the legislature has provided a number of special taxes that may be levied for special

purposes and used for the particular purpose for which they are levied.

GRADING FUND

Chapter 45 laws of the 37th General Assembly, makes subdivision 1, Section 894, apply to towns.

A tax not exceeding in any one year, three mills on the dollar, for a grading fund, to be used for the purpose of opening, widening, extending and grading any street, highway, avenue, alley, public ground or market place.

IMPROVEMENT FUND

Section 792-f Code Supplement authorizes towns to pave their streets and roads as follows:

"That incorporated towns shall have and exercise the power conferred by chapter seven, title five of the code, for the construction of street improvements authorized in section seven hundred ninety-two of the code, whenever four-fifths of all the members of the council by vote assent thereto, or when the same be petitioned for by the owners of the majority of the linear front feet of the property abutting thereon. That all of the provisions of subdivision two of section eight hundred ninety-four of the code shall be applicable and apply to incorporated towns."

This gives towns all the powers provided by section 792 code supplement and where improvements are made under this section makes subdivision two of section 894 apply to towns.

"A tax not exceeding, in any one year, five mills on the dollar, for a city improvement fund, to be used for the purpose of paying the cost of the making, reconstruction or repair of any street improvements at the intersections of streets, highways, avenues and alleys and at spaces opposite streets, highways, avenues and alleys intersecting not crossing, and at spaces opposite property owned by the city or the United States, and for the purpose of paying the purchase price and subsequent taxes assessed against property purchases by the city at tax sale."

SEWER FUND

Section 840 Code Supplement makes subdivision 3 of section 894 apply to towns.

"A tax not exceeding, in any one year, two mills on the dollar on the assessed valuation of all property therein, for a city sewer fund, when the entire city comprises one sewer district, to be used to pay the cost of the making, reconstruction or

repair of any sewer at the intersection of streets, highways, avenues, alley and all spaces opposite streets, highways, avenues and alleys, intersection but not crossing, and at spaces opposite property owned by the city or the United States, and to pay the whole or any part of the cost of the making, reconstruction or repair of any sewer within the limits of said city, when a city has been divided into sewer districts, a tax not exceeding two mills on the dollar on the assessed valuation of all proceedings, two mills on the dollar on the assessed valuation of all property in the sewer district, for a district sewer fund, to be used to pay, in whole or in part, the cost of the making, reconstruction or repair of any sewer located and laid in that particular district."

A tax not exceeding two mills should be levied where the town has put in a sewer system to pay the cost of sewers built by the town.

Subdivision 12 of section 894 Code Supplement provides "the provision of subdivision 5, 6, 7, 8, 9, 10 and 11 of section 894 are extended to incorporated towns."

WATERWORKS TAX

"A tax not exceeding in any one year, five mills on the dollar, which, with the water rates or rents authorized, shall be sufficient to pay expenses of running, operating and repairing waterworks owned and operated by any city or town, and the interest on any bonds issued to pay all or any part of this cost of construction, renewal, repair, or extension of such works; but such tax shall not be levied upon property which lies wholly without the limits of the benefit and protection of such works, which limits shall be fixed by the council each year before making the levy."

A tax of not exceeding five mills provided for by this section can be levied where the town owns the waterworks.

ELECTRIC PLANT TAX

"A tax not exceeding, in any one year, five mills on the dollar, which, with the rates or rentals authorized, shall be sufficient to pay the expense of running, operating and repairing gasworks and electric light or power plants, owned by the city or town, and the interest on any bonds issued to pay all or any part of the cost of the construction of such works or plants, but such tax shall not be levied upon property which lies wholly without the limits of the benefits of the same, which limit

shall be fixed by the council each year before making the levy."

This tax of not exceeding five mills can be levied where the town owns the gasworks and electric light.

WATER TAX

"A tax not exceeding, in any one year, five mills on the dollar, for the purpose of paying the amount due or to become due to any individual or company operating waterworks for water supplied under any contract, the levy to be limited to the property as in subdivision five, hereof; and if in cities of the first class the maximum tax is not sufficient to pay such amount under contracts now in force, the deficiency shall be paid out of the general fund."

This tax of not exceeding five mills can be levied where the town buys water from someone instead of owning the plant.

LIGHTING TAX

"A tax not exceeding, in any one year, five mills on the dollar, for the purpose of paying the amount due or to become due to any municipality, individual or company operating gasworks or electric light or power plants for all gas, electric light or power supplied under any contract, the levy to be limited to the property as in subdivision six hereof; providing that in cities of five thousand or towns, there may be in any one year a tax not exceeding seven mills on the dollar."

This tax of not exceeding seven mills can be levied where the town buys its lighting from some private plant.

GENERAL BOND FUND

"A tax for the purpose of creating a bond fund sufficient to pay the interest to accrue before the next annual levy on funding or refunding bonds outstanding, and such proportion of the principal that at the end of five years the sum raised shall equal at least twenty per cent of the amount of bonds issued; at the end of ten years at least forty per cent of said amount; and at the end of fifteen years at least sixty-five per cent of said amount, and at or before the date of maturity of said bonds a sum equal to the whole amount of the unpaid principal and interest, which tax shall be used to pay such principal and interest, and for no other purpose."

Under this section a tax should be levied sufficient to pay the interest or refunding bonds and the part of the principal as explained in the section.

SPECIAL BOND FUND

"A tax as authorized in the preceding sub-division to be levied in the proportion therein set forth, and to be used exclusively in payment of the principal of bonds issued in the construction of water and gasworks and electric light and power plants, which tax shall not be levied upon property lying wholly without the limits of the benefits of such works or plants, which limits shall be fixed by the council each year before making the levy."

A tax should be levied under this section wherever there are bonds outstanding for waterworks, gassworks or electric light plants sufficient to pay the principal of such bonds in the proportion set out in subdivision nine but simply for the principal.

CEMETARY TAX

"A tax not exceeding one-half of one mill on the dollar of the assessed valuation of the property within the corporate limits, for the care, preservation and adornment of any cemetery owned or controlled by the city, or any private or incorporated cemetery association utilized by citizens of said city or town; and the said tax may be so expended for the support and maintenance of any such cemetery after the same has been abandoned and is no longer used for the purpose of interring the dead."

This allows a town to levy one-half mill tax to maintain a cemetery.

CEMETERY PURCHASE

Section 880, subdivision 4, Supplement 1915.

"Such cities and towns may levy a tax not exceeding in any one year one mill on the dollar of the assessed valuation of the property within the corporate limits thereof, such levy to be used for no other purpose than the payment for the land acquired for cemetery purposes and interest accruing on the purchase or condemnation price thereof."

This section authorizes a tax for not to exceed one mill for the payment of land for cemetery purposes.

OUTLET AND PURIFYING PLANTS FOR SEWERS

Section 840-g Code Supplement as amended by the 36th General Assembly reads as follows:

840-g. "Cities of the second class and towns shall have the power to levy annually a tax of not to exceed five mills on the dollar to be used solely for the purpose of constructing outlets and purifying plants for sewers. The levy made under this act shall not be considered

a part of the levy made for a sewer fund under provisions of the law as it appears in paragraph three of section eight hundred ninety-four of the supplement to the code, 1917. The tax herein authorized may be anticipated by issuing certificates or bonds, as provided by section nine hundred twelve of the code."

This tax shall be levied where the town has built a sewage disposal plant or outlet sewer.

PARK FUND

Wherever a board of park commissioners has been established in connection with section 850-a code supplement a tax of not exceeding two and one-half mills can be levied on all property in accordance with section 850-a code supplement.

LIBRARY TAX

Subdivision 4 of section 894 provides that where a free public library has been established in accordance with section 727 code supplement and following, a tax may be levied for library purposes in sufficient amounts to pay expenses of the library and as fixed by the library board, not to exceed five mills in any one year. This section read as follows:

"In cities and towns which have established, or may hereafter establish a free public library when the trustees of such library have made the certificates provided for in section one hereof, a tax in the amount so certified, but not exceeding in any one year five mills on the dollar in all cities and incorporated towns to be used for the maintenance of such library; in such cities and towns an additional tax not exceeding in any one year three mills on the dollar, for the purchase of real estate and the erection of a building or buildings thereon for a public library or for the payment of interest on any indebtedness incurred for that purpose, and for the creation of a sinking fund for the extinguishment of such indebtedness."

ROAD DRAGGING FUND

Section 887-a Supplemental Supplement 1915 provides:

"City and town councils, in cities having a population of less than eight thousand (8000) and towns, may at the time of levying taxes for other purposes, levy a tax of not more than one mill on the dollar of the taxable value of such city or town, which shall be used for dragging

(Continued on page 121)

Public Bathing-Beaches

By H. A. Whittaker, Director Division of Sanitation, Minnesota State Board of Health

The proper location of a public bathing-beach is very important from a sanitary point of view. A body of water should be selected which is comparatively free from pollution, especially that of human origin. The physical properties of the water, which include turbidity, color and odor, should be satisfactory. These facts should be determined by field and analytical surveys of the body of water selected. The volume of water should be sufficient so that dilution or displacement of the water at the bathing-beach can be accomplished without producing gross pollution of the body of water on which it is situated. The bathing area should be located at a point receiving the greatest exposure to prevailing winds. The variations in the depth of water should be sufficient to provide wading, swimming and diving facilities for children and adults. The lake bottom at the bathing area should be naturally or artificially surfaced with material of such size and weight that it will immediately resettle on being disturbed by bathers or by wave action, and will not be uncomfortable to the feet of the bathers. Points of attraction in the bathing area, such as diving-stands and piers, should be scattered, in order to prevent the massing of bathers at a single point.

In order to prevent unnecessary pollution of the bathing-beach, certain instructions should be given to bathers. They should be warned against swallowing water accidentally taken into their mouth during bathing and against the indecent and dangerous practice of excreting bodily discharges into the water. The practicability of requiring each bather to take a shower-bath before putting on a suit and entering the bath, should be given consideration. Persons infected with communicable diseases must be excluded from the bath. It is desirable to have the bathing-beach under analytical supervision. Bacteriological examinations of the water can be made to detect excessive pollution of the bathing area and the gross pollution of the body of water on which it is situated. Microscopic examinations should be made to detect micro-organisms, such as algæ, etc., which may be objectionable if allowed to develop in large numbers. Physical and chemical

examinations may be indicated in special cases, but are not usually important if the proper body of water has been selected. If excessive pollution is shown to exist in the water of the bathing area during certain periods of the day when large numbers of bathers congregate, this condition may be improved by (a) limiting the number of bathers per hour, (b) by increasing the size of the bathing area, or (c) by disinfection of the bathing area with calcium hypochlorite or liquid chlorine.

The bathing-pavillion should be designed and equipped for a maximum capacity based on the number of persons who, during a given period of time, can safely use the bathing area in the body of water selected. The arrangement of the building should be convenient, and its construction and equipment such that it can be easily cleaned. The exposure of dressing rooms and locker-rooms to the open air and sunlight is very desirable. A water supply of good sanitary quality for drinking and cleansing purposes should be maintained, and a satisfactory sewage system installed for the disposal of waste from the building. Drinking water should be accessible, both inside of the pavilion and near the bathing-beach in order to lessen the incentive for bathers to swallow the water in which they are bathing. Adequate toilet facilities should be available which will be easily accessible from the bathing-beach in order to discourage the use of the bathing area for this purpose.

The laundry for bathing materials should be conducted under careful supervision, and this material should be thoroughly disinfected during the process of cleansing.

The establishment of large bathing-pavilions and bathing-beaches for the accommodation of great numbers of people is undesirable. Under such conditions it is difficult to prevent the massing of bathers during certain periods, even though the bathing area is comparatively large. A number of small bathing-pavilions scattered about on the bodies of water selected is much more desirable than a single large bathing-pavilion and bathing-beach when considered from a sanitary point of view.

War Policy in Road Building

Head of Department Explains How Highway Problem is Being Handled

Governmental agencies dealing with highway problems fully recognize the vital military and economic importance of the country's roads, according to a letter from Secretary of Agriculture Houston to Arthur H. Fleming, Chief of the State Councils Section, Council of National Defense.

The secretary, whose department administers the Federal Road Act, stated also that the government recognizes that it is necessary to construct, reconstruct or maintain roads essential for military and vital economic purposes and to defer action on roads not of this class; and that it is desirable, wherever possible, to use local materials for road building and maintenance in order to relieve railroad traffic.

Important highways, as described in the secretary's letter, include only those utilized, or to be utilized, by the military establishment, those which carry a considerable volume of materials and supplies essential to war industries, and those which have a bearing on the production and distribution of food supplies, connecting population and shipping centers with surrounding agricultural areas.

DUTIES OF HIGHWAY COUNCIL

Attention is called to the formation of the United States Highway Council. This body was suggested by the secretary to co-ordinate federal agencies interested in highway problems. The council is made up of a representative each from the Department of Agriculture, the War Department, the Railroad Administration, the Fuel Administration and War Industries Boards. It will form a unified agency for dealing, on behalf of the Federal Government, with highway construction, maintenance and policies. It will, of course, through the Office of Public Roads and Rural Engineering of the Department, continue the close contact already established, both formally by law and informally by practice, with the state highway commission in each state.

The office of Public Roads and Rural Engineering and the Highway Council will actively consider the supply, for highway purposes,

of road oils, asphalts and other bituminous road materials controlled by the fuel administration, and the matter of priority production for highway materials controlled by the war industries board. They will also, in contact with the railroad administration, aid in securing, so far as practicable, facilities for the transportation of road materials and supplies. Furthermore, the office of Public Roads and Rural Engineering will act as the medium for furnishing information and assistance on highway problems, especially to state highway authorities in meeting the various difficulties which they encounter.

WORK PLANNED BEFORE THE WAR

When the United States entered the war the work of planning state highway systems, so that, as far as necessary and feasible, they would connect with the systems of other states, was well under way. This resulted from efforts to administer the Federal Aid Road Act, so that the roads of vital importance for economic, military and other purposes should first be dealt with. The Federal Aid Road Act—involving an aggregate five-year expenditure, directly and from state and local funds, of \$160,000,000 in addition to at least \$200,000,000 spent independently each year by the states—provides that the states must maintain the roads and that before any money can be expended the roads must be selected and approved and plans, specifications and contracts submitted. It also provides that the Federal Government must inspect the construction of the roads.

WAR ROAD POLICY ADOPTED

Soon after the United States entered the war, the Department of Agriculture requested the State Highway Commissions to join it in directing expenditures only on roads of prime importance for economic and military purposes. In this undertaking, the secretary says, the department has received the co-operation of state authorities.

The department has been actively co-operating with the Capital Issues Committee in its task of keeping out of the market road bonds the issuance of which was not urgent from the point of view of aiding the Nation in winning the war.

Electric Pumping for Water Works

Comparison with Other Forms of Power on Basis of Cost, Durability and Reliability

The same points should be considered when one is choosing power for pumping as when choosing type of pump—first cost, length of useful life, reliability and total cost of operation.

Steam, gasoline and oil engines are all competitors of the electric motor.

First cost means high fixed charges, which should always be included in the total pumping cost. Power plants are arranged in the following order as to first cost: steam (high), oil, gasoline, electric motor (low).

Steam pumps and pumping engines and electric motors are likely to have a longer useful life than oil and gasoline engines.

Steam power is generally considered the most reliable of all types of power. Electric power is sometimes placed second, not because the motor itself is inferior to the steam plant, but because the motor must depend upon the electric central station and connecting lines. Gasoline engines require less skillful attention than oil engines and for that reason are more reliable.

Comparative total costs of operation with different types of power offer a subject for debate. But the true answer depends largely upon the amount of power required and upon other conditions.

When the costs of fuel only are compared with the cost of electricity, the high efficiency oil engine takes the lead. Except for small plants, coal costs are lower than gasoline costs. Cost of electric current per 1,000 gallons of water pumped depends partly upon the rate per kilowatt hour. For large plants it is often higher than coal cost and for moderate sized plants it is likely to be higher than fuel cost for an oil engine.

Fuel costs comprise only part of the total cost of operation by engines. In general the different kinds of power may be arranged as follows in reference to total cost of attendance, lubrication and repairs: steam (high), oil, gasoline, electric (low).

Electric pumps are adaptable to remote and

automatic control and thus may effect a big saving in operating expense.

A careful study and analysis of the average problem indicates that, with a reasonable rate for current, pumping by electricity results in a lower total of fixed charges and operating expenses than does pumping by any type of engine.

ELECTRIC PUMPING COSTS

A summary of pumping plant data collected from operating records results in the following averages and ranges:

	Approximate Average	Approximate Range
Single Stage Pumping		
Daily pumpage, gallons.....	260,000	40,000-1,000,000
Total head or lift, feet.....	155	14-305
Kw-hrs. per 1,000 gals. (10 plants)	1.08	0.50-182
Rate in cents per Kw-hr.....	3.58	1.5 -6.0
Double Stage Pumping		
Daily Pumpage, gallons.....	66,000	25,000-135,000
Total head or lift, feet.....	300	150-525
Kw-hrs per 1,000 gals. (6 plants)...	4.39	1.16-9.00
Rate in cents per kw-hr.....	3.15	1.7 --5.0

From the wide range of kilowatt hours per 1,000 gallons (0.50 to 9.00) and of rates per kilowatt hour (1.5c. to 6.0c.), it is evident that the cost of current per 1,000 gallons has a very wide range. The individual reports showed this cost to range from 1.25c to 15c, with an approximate average of 5.3c.

The higher costs are in cases of two stage pumping when the air lift is used for the first stage. In fact, four out of the six two-stage plants included in the tabulation given above employed the air lift.

Cost of attendance, lubrication and maintenance for electric pumping cannot well be summarized for the general case, but it is usually a small fraction of the cost of power.

Fixed charges on the pumping machinery are also usually less than the cost of power. But fixed charges at say 10 per cent on the total waterworks investment constitute a very large part of the cost of water delivered to consumers.

Only in exceptional cases does the municipality receive sufficient revenue from the sale of water to pay all operating expenses and legitimate fixed charges. A large part of the waterworks investment is due to fire protection and provisions

for other public uses of water. Consequently it is appropriate that part of the costs be paid by general taxation.

CHARACTERISTICS OF VARIOUS TYPES OF PUMPS

For ordinary deep well pumping, when the outside casing is not over 8 or 10 inches in diameter, the reciprocating pump is most common. It is comparatively economical in power consumption for the smaller sizes, and the low speed at which it is run tends to obviate injurious vibrations and excessive wear. Valves require attention at intervals. To insure successful operation, the inside casing must be plumb and the water must be fairly free from gritty substances. Displacement capacity of the reciprocating pump is determined by bore, stroke and type of cylinder and by speed. When water is delivered on the upward stroke only, the speed is necessarily low. Double acting, double stroke and differential plunger pumps with a cylinder having a 6 inch bore and a 24 inch stroke allow speed up to thirty or more complete strokes per minute.

Centrifugal deep well pumps with vertical shafts are made for well casings whose inside diameter is not less than ten or twelve inches, and are in general suited to low heads and discharges as compared to the reciprocating pumps. The centrifugal pump has no valves to repair, but bearings both above and below the ground surface are subject to wear. The runner vanes and other parts struck by the high velocity water may be subject to rapid wear if the water contains injurious solids or compounds in solution.

The propeller deep well pump, with a vertical shaft is made for smaller well casings and for lower heads than is the centrifugal pump. Its chief advantage seems to be a large capacity in a small well casing. One company which makes both types rates the propeller pump at 2,000 gallons per minute from a well of 12 inches inside diameter and the centrifugal pump at 400 gallons per minute from a well of the same size. The shafts of both propeller and centrifugal pumps run at high speeds, and require true alignment to prevent excessive vibration and wear.

The air lift installation has an advantage over other deep well pumps in that all moving machinery is on the surface and is more accessible for lubrication, adjustment and repairs. A number of wells can be pumped by air from one compressor. In some cases an advantage is

gained by the aeration and cooling effect from the expanding air mixed with the rising water. The air lift is especially adapted to pumping sandy and chemically impure water. It is also less affected than other pumps by certain unfavorable conditions, as for instance a well casing out of plumb.

The air lift is often employed where the water level is far below the surface, and where extra heavy pump rods would be necessary to insure sufficient strength and stiffness for a reciprocating pump. One catalogue has stated that the air lift "will deliver a greater quantity of fluid from a deep drill hole than any other method of pumping". A later catalog from another company states that its propeller pump "will furnish a larger amount of water from a well of given diameter than any other known type of pump".

A well, to be equipped with an air lift, must extend considerably below the water level during operation, in order to afford sufficient submergence for the air and delivery pipes. According to the authority, the economical submergence is from 55 per cent to 80 per cent of the elevation between the lower end of the piping and the point of discharge above the surface.

Except for low heads, the single acting plunger pump is most commonly employed for surface work. It is practically always built as a vertical cylinder, triplex pump, which gives a very nearly steady flow of water. The plungers are very easily inspected and it is a comparatively simple matter to renew the packing. This type is better adapted to handling water with gritty matter than is the piston pump, as the water in the cylinder is below the plunger. Plunger pumps are made for moderate and very high heads and for a great range of discharge capacities.

The double acting piston pump may be considered as the "power" development of the water end of the direct acting steam pump. The piston pump has less weight and size for a given capacity than the plunger pump and offers the advantage of compactness, especially for horizontal duplex and as a vertical triplex pump, as well as in other forms.

For low heads and large discharge capacities, the surface centrifugal pump is especially favored. It is also built for high heads (multi-stage) and for small capacities. This type of pump offers

the advantages of low first cost, economy in space and weight, absence of valves and reciprocating parts, and ability to pass some solid material. The necessary high speed requires accurate balance and frequent attention to bearings. The action of the centrifugal pump depends upon such scientific laws, that a drop from the proper speed with a certain head means a greater drop in capacity than would result with a type of more positive action.

The rotary pump has not yet found much employment for city pumping. Its chief weakness seems to be its inability to stand up under unfavorable conditions. It has been especially subject to wear when the water contains gritty matter. A new style, which may prove more successful, is now being developed for town and city service. Positive force and delivery, without reciprocating motion, and a fairly constant efficiency under changing conditions are the principal advantages of the rotary pump. One manufacturer makes them for capacities up to 175 gallons per minute and for heads up to 115 feet; another makes them for capacities up to 1,050 gallons per minute and for heads up to 460 feet.

Centrifugal pumps possess the advantage over pumps of positive action in that the discharge can be closed, while operation is continued, without wrecking the pump. A centrifugal pump for instance will run with less power under full head and speed when the discharge is zero than when the discharge is normal. It is a measure of safety to provide the discharge pipe of a positive acting pump with a relief or safety valve.

For pumping from pits and open deep wells, centrifugal pumps are made with vertical shafts, and triplex pumps are made with long rods.

Another important characteristic of a pump is its mechanical efficiency, or the ratio of horsepower output to horsepower input. This efficiency is always below 100 per cent, because part of the power delivered to the pump pulley, gear or shaft, is lost in bearing and water friction and cannot be included in the water power output of the pump.

A pump of positive action, such as a reciprocating or rotary pump, may generally be expected to yield higher efficiency than other types, except possibly for low heads. Additional losses

occur in centrifugal and propeller pumps on account of the high speed "churning" action upon the water. Thermodynamic losses from compressed air cut down the efficiency of the air-lift system.

In general, efficiency increases with increase of head or delivery or with both, but there are likely to be points in changes of head and delivery at which one type of pump will take the lead away from some other type.

Makers' ratings are generally for favorable conditions. After a pump has been in service for some time, more friction or slip may develop and materially lower the efficiency. On the other hand, a pump in service may exceed its rated efficiency.

Reciprocating pumps maintain a fairly constant efficiency under variations in head and speed. A large triplex pump under the best conditions may reach 80 per cent. In many plants the actual value is materially below 80 per cent.

Rotary pumps are similar to reciprocating pumps in maintaining efficiency under varying conditions; its maximum value may approach that of reciprocating pumps.

Centrifugal surface pumps very rarely reach as high as 70 per cent, and that only when a very large flow of water is involved. The average efficiency in actual operation is often considerable below the possible maximum because the efficiency falls off rapidly when the head changes from that for which the pump is speeded.

The efficiency of a propeller deep well pump is generally considered to be lower than that of the centrifugal deep well pump. According to the catalogue of one company which makes both types, the relative efficiencies are about three to two in favor of the centrifugal.

The air lift is noted for its low efficiency. Efficiency here means ratio of power output in the water to power input to the compressor, and from 10% to 25% is about all that is realized in ordinary practice, although values as high as 35% have been reported. Multi-stage compression, suitable for air cooling and proper submergence with the right arrangement and sizes of pipes make for economy of power consumption.

On account of its low efficiency, the air lift is seldom used except under specific conditions which would make other types of pumps unsuitable.

Only high speed pumps are made for direct shaft connection with electric motors. Because of their low speed, reciprocating power pumps are generally driven by a belt, chain, or gears from motor and engines.

Direct connection is, of course, most efficient of the four types of drives mentioned. Belt drive is fairly quiet, possesses flexibility, but requires considerable space. A tightener pulley permits a shorter belt but cuts down the efficiency. Gear drive is fairly efficient, requires a small space, but possesses very little flexibility, and is not recommended where silence is essential. Chain drive is suitable for transmission of much power at a slow speed, in less space than a belt occupies, and in places subject to undue heat and dampness. Well designed and built chain and sprockets are more quiet than all metal gears but if, from abuse, the chain links become distorted the drive will be noisy and inefficient.

THE CHOICE OF PUMP TYPE AND CAPACITY

Reliability and net overall economy should determine the choice of pumping equipment. Economy depends upon both fixed charges and operating expenses.

To insure reliability the pump must be of proper type to fit the conditions, must be of ample capacity, must be well designed and stoutly constructed; and, when the extra investment is warranted, a reserve unit may be provided.

For fire protection, an additional pump is sometimes provided, or the service pump may be designed for a higher head than exists under ordinary service.

Operating expenses comprise mostly power, attendance, lubrication and repair costs. High efficiency results directly in low power consumption. Within certain limits a larger pump will cut down the required attendance in a small town plant by making fewer hours of daily operation necessary. The cost of lubricant is not likely to be an important factor in choice of pump. The cost of repairs is highest when it is attempted to operate a pump under conditions for which it is not suited.

The type of pump is likely to affect the first cost of other equipment. For instance a deep well centrifugal pump may require to deliver the same flow, a larger well casing than would a propeller pump. Or, a surface centrifugal pump

may be directly connected to a high speed motor while a reciprocating or rotary pump of the same capacity as the centrifugal would have to be belt or gear driven and would require a low speed and more costly motor.

The question may come up as to whether it would be best to use a deep well pump for forcing water into the stand pipe or service mains instead of allowing it to pump into a surface reservoir, from which point the water would be delivered into the mains from another pump. If the total head is not too great, better efficiency will usually be obtained by single stage rather than by two stage pumping. In a number of Iowa towns, water is successfully raised, by a single deep well reciprocating pump, from 20, 30 or 40 feet below the surface and delivered into mains against about 100 feet of head.

Centrifugal and propeller deep well pumps are sometimes provided with booster centrifugal pumps at the surface, mounted on the same shaft as the lower runners.

When the air lift is used, however, it is generally found more economical to deliver the water into a surface reservoir and perform the second stage of pumping by a more efficient style of pump.

Propeller pumps are designed for wells in which the water (during operation) is not more than 100 or 150 feet from the surface. The corresponding maximum head for centrifugal deep well pumps is about 200 feet. Reciprocating deep well pumps are made for lifts up to 500 feet, but a cylinder for such a pump is of small delivery capacity. Air lifts have been installed for even greater heads. One authority recommends that when the air lift is used for more than 180 feet of elevation, it would be more economical to use two or more air lifts in series.

In choice of pump capacity, in gallons per minute, some of the primary deciding factors are the daily pumpage required, storage capacity, and the amount of continuous supply available. If the source of water is limited to a certain deep well, the capacity of pump may be limited by the diameter of the well casing.

Not only the average but also the maximum gallons required per day should be known approximately.

In case the supply is to come from a well or wells, it is a wise precaution to test the source

for maximum flow before choosing a permanent pump. If the supply is to come from a small stream or other source, possibly limited, it is well to know first what the minimum flow during the year will be.

Economy of operation should also have a voice in the choosing the size of pump. Large pumping plants may find it economical to have one or more pumps at work practically all the time while other pumps are held in reserve. The small municipal water works with but one pump, in a town of say, 1000 population or less, will operate more economically when the pump and storage are of such capacity that the pump need work only a few hours out of the twenty-four. The larger pump and motor or engine are more efficient than the very small unit, the machinery will last longer, less attendance is required, and more time is available for repairs in case of a break-down.

It is wise to choose a pump with a rating well above the actual flow desired. Ratings are usually based on cylinder displacement or upon quite favorable conditions. A new reciprocating pump may deliver from 5 per cent to 10 per cent less water than its cylinder displacement. After the same pump has been used for some time, it is likely to have more slip unless kept in very good repair.

FIRE PROTECTION

The question of fire protection is sometimes the deciding factor which determines whether municipal pumping is to be done by steam or electricity. Reliability is the one important requirement. When steam is adopted it is for one or both of two reasons—unreliable character of the electric current, and a greater faith in the steam pump than in the electric pump.

In case it is conceded that no available source of electric current can be depended upon for faithful service in all emergencies, it is indeed unwise to place trust in the electric pump. But with modern operation in moderate and large size electric central stations, such a failing can seldom exist. It is a wise precaution to provide two power circuits to the electric fire pump. It seldom occurs that connections can be had with two independent generating plants, but two separate lines can be built from the one plant; more than one generating unit is usually available

for fire service. If the generating station is in a distant city and is connected by but one transmission circuit, the most probable chance of possible failure will be in that one line.

Underwriter's direct acting steam pumps are favored for fire protection because of their simplicity and their flexible yet positive action. They are made with large openings and are very stoutly constructed.

As a competitor of the steam fire pump, the electrically driven direct connected multiple stage centrifugal fire pump is offered by manufacturers of power pumps. It is especially designed and constructed to conform to requirements of the fire underwriters. Rated pressure heads usually range from 100 to 150 pounds per square inch. Rated capacities are from 500 to 1500 gallons per minute. These flows would supply from 2 to 6 fire streams, each stream of 250 gallons per minute.

The centrifugal fire pump is comparatively simple, and flexible in operation; yet it can be depended upon to deliver large volumes of water at high pressures. Its characteristics are such that the motor cannot be seriously overloaded, even with the discharge completely closed or completely opened with no restraining pressure.

The above remarks refer to those systems where the stand pipe, water tower, or pressure tank does not provide sufficient pressure and capacity for fire protection, and where "fire pressure" must come directly from the pump. Most small towns having water towers depend upon stored pumpage and install no special fire pump. In many larger municipalities containing higher buildings and a wider territory, normal service storage and pressure are not sufficient for adequate fire protection.

The cost of operating a steam pump while fighting fire is not considered important. But the expense of keeping the boiler fire banked twenty-four hours per day, and fixed charges on the boiler investment, are very important and are very big items of cost in a town of moderate size where service pumping is done by other than steam power. In case the pumping plant is part of the electric central station, or is adjacent to it, steam pump fire protection may be maintained at a reasonable cost by means of a steam pipe connection with the central station boilers.

—Municipal Journal.

Kalamazoo Tries Proportional Representation

By Augustus R. Hatton, in *National Municipal Review*

"This method is too intricate and tedious ever to be adopted for popular election by the people." In a decision rendered in 1890 the supreme court of Michigan let fall this dictum concerning the Hare system of proportional representation. On February 4 of this year, Kalamazoo, one of the larger Michigan cities, by an overwhelming majority, adopted a charter which established that system and on the first of April, at an election held under this charter, only three and one-half per cent of the ballots cast were uncountable, and the result of the election could be known before the earliest breakfast the following morning. From this one might be justified in drawing the conclusion that the reputation of inerrancy, which the courts so much covet, is subjected to unnecessary hazards when they attempt to set themselves up as political oracles. But this is not to be a dissertation on judicial dicta; it is only an attempt to record the experience of a community of considerable size with a new electoral device.

Kalamazoo is a remarkably clean and attractive city of approximately 50,000 inhabitants. The greater portion of its people might properly be described as of American stock, but there is a considerable Dutch element in the population, usually referred to in Kalamazoo as Holland Dutch or Hollanders. The Dutch are thrifty and conservative, their chief civic interest being in keeping down the tax rate. The industries of Kalamazoo are varied and the percentage of home ownership is high in spite of the fact that the wage scale for laboring people is unusually low. A low wage scale seems to be typical of the Michigan lumber and furniture towns and of others falling within their sphere of influence. This condition helps to explain some phases of Kalamazoo's politics later recorded.

On the whole Kalamazoo has been well governed and, in spite of the conservative elements in the population, it has been remarkably progressive. It has owned its waterworks from the beginning and several years ago established a

municipal electric light plant for public lighting, though as yet current is not sold to private users. There has been a long struggle with the local gas company over rates and ownership. A few years ago the voters returned a verdict in favor of municipalization of the gas plant. A little later a bond issue for the purpose of establishing a municipal plant failed to receive the required three-fifths vote, although it was supported by more than a majority of those voting at the election. The gas company is now operating without a franchise. The supreme court of Michigan recently decided that so long as the city was under a legislative character, it could not regulate rates charged by the company. Now that a home rule charter has been adopted, an attempt will probably be made to regulate gas rates. The gas question has agitated the people for a number of years and its discussion has increased the interest in public affairs.

Dr. Upjohn was the father of the new charter movement. Several years ago he became interested in a comprehensive city plan but soon convinced himself that little could be accomplished under the old legislative charter. It was he who initiated the movement for the new charter league and brought Freeman to Kalamazoo. He was elected to the charter commission and was made chairman of that body. The charter adopted last February establishes the manager plan and provides for a council of seven to be elected from the city at large by the Hare system of proportional representation. The campaign preliminary to the election of the charter commission, and the campaign for the adoption of the charter after it was framed, may well be studied as examples of sound political procedure. Under Mr. Freeman's management, the education of the public was thorough. No issues were evaded. Thus when the question was asked whether the new charter would reduce the tax rate, the answer was given that it probably would not. It was made clear to the voters that expenditures in the future would necessarily be heavier,

than in the past and that for that reason it was desirable to have a more effective instrument of government.

The charter was adopted by a vote of more than two to one. This vote is an interesting commentary on the opinions of leading citizens and politicians of Kalamazoo as to the possible effect of including proportional representation in the charter. Before the provisions for P. R. were written in, letters were sent to a large number of leading citizens asking their opinions as to the possible effect of its inclusion upon the popular vote. With two or three exceptions, these citizens and politicians stated that while they believed in the principle of P. R., they felt sure that its inclusion would lead to the rejection of the charter.

The charter provides for nomination by petition of at least fifty voters, no voter being permitted to sign a petition for more than one candidate. Under these provisions twenty-three candidates came into the field for the recent election. They represented a wide range of ability and opinion and it was at once apparent that from them a very able and representative council might be selected. Apparently the campaign would have passed off with extreme smoothness, not to say tameness, if a local celebrity, Truxton Talbot, had not seen fit to bring forward a ticket which included his own name. A considerable portion of the people of Kalamazoo would only admit that Talbot is a celebrity in the sense that Milton characterized Satan as occupying a "bad eminence". He is the editor and publisher of a small socialist weekly called "The People". In recent years this paper has frequently irritated the "better element" by attacking and making light of some of their most cherished institutions. Talbot is not always careful of his facts and as a result served a jail sentence a few years ago for making statements which he could not substantiate concerning a public official.

For some time after Talbot brought his ticket forward, no particular attention seemed to have been paid to it. The fact is that his list contained the names of three men of some consequence. These were Shakespeare, a manufacturer, Butler, a physician, and a cut-rate clothing man, Alexander Velleman. In the straw ballots, taken after all the candidates were in the field, and before the concerted attack on Talbot had begun,

Shakespeare was always in the lead. However, about two weeks before the election, someone seemed to have been inspired with the idea that the election of Talbot or anyone supported by him would be a burning disgrace to the city. Whereupon a so-called municipal voters' league was formed, the main purpose of which was to defeat Talbot and his entire ticket.

It is probable that some of those active in the work of the voters' league had other motives than to save the fair name of their city. These were men opposed or none too favorable to the new charter, those opposed to proportional representation, and certain active partisans who had figured largely under the old plan of government and who found themselves shelved by the new charter. There can be no doubt that some of them welcomed the Talbot candidacy as an opportunity to discredit P. R. and the entire new charter movement. The voters' league seems also to have been fully under the control of the conservatives. They attempted to agree on a ticket of seven to recommend to the voters, but could not do so. They finally advised the voters to make sixteen choices, including all the candidates except those approved by Talbot.

The voters' league conducted its campaign largely through newspaper advertising. This was probably rather expensive as their space ran into many pages. Their grand strategy consisted in printing extracts from Talbot's paper in which he had commented severely on such things as the church, the Y. M. C. A. and the army. The other men on Talbot's ticket were not mentioned except to indicate that they were contaminated by association with him. The result of this type of campaign was to make Talbot appear to be more important than he really is and probably resulted in his election.

As might have been expected, under the circumstances, "loyalty" was made a leading issue. In this respect, also, the attack was directed against Talbot alone, the attitude of the other men on his ticket, especially of Mr. Shakespeare and Dr. Butler, being too well known to be called in question. The factory of Mr. Shakespeare was turning out war materials while Dr. Butler as a member of the draft appeal board had one son in military service and protested when the medical examiners rejected his youngest son. As to Talbot himself it must be said that, whatever the attitude of his paper may have been

before we entered the war, a careful reading of its files for the first three months of 1918 reveals, it is true, some statements that might be considered unwise, but nothing that could justly be termed disloyal. On the contrary the paper frankly supported the war, declared its confidence in the president, urged the working people to hear such pro-war speakers as Clarence Darrow and Captain R. Hugh Knyvett, even going as far as to advise the workers that the best thing to do "is to carry a stiff punch up your sleeve for the first pro-German you hear trying to discredit your Uncle Sam".

It must be admitted that Talbot conducted his campaign more skillfully than his opponents. The one daily paper, refused to open its columns to paid advertising for the Talbot ticket. This fact supported by affidavit was heralded through the city by means of hand bills and posters which can be used with excellent effect in a city no larger than Kalamazoo. Talbot also retorted upon the voters' league by charging that they represented the chamber of commerce, the politicians, the gas and railway companies and big business in general.

The campaign literature, and the discussion, indicated that neither side fully understood what was possible under a system of proportional representation. Some of the anti-Talbot forces, fearing that a majority of the Talbot ticket might be elected, expressed a strong desire for a system under which the council would be chosen at large by a majority vote. These critics failed to see that if the Talbot forces could elect a majority of the council under proportional representation, the same forces by voting a straight ticket, would elect every member of the council under a mere majority system. On the other hand, Talbot went equally astray in his statement of possibilities. In one appeal to the working people to support his ticket he made the statement that "if you . . . vote solidly for these seven men you will have the satisfaction of electing at least six of them—possibly the whole seven". The improbability, not to say impossibility, of a ticket being elected in its entirety becomes clear when it is understood that in order to achieve this result any such ticket would have to receive more than seven-eighths of all the votes cast. For any one group to win six out of seven places is only slightly less improbable,

while the election of five out of seven would show a remarkable approach to unanimity on the part of the voters.

The election was held on April 1 and the day passed uneventfully. The vote was light. While eight thousand ballots might have been expected, only 4,461 were cast. The falling-off occurred in all parts of the city and for it no satisfactory explanation can be offered. Of the 4,461 ballots, only 157 were blank or invalid, a remarkable showing for an election under any system. At the first proportional representation election in Ashtabula 362 ballots were either blank or invalid, out of a total of 3,334.

The poles did not close until eight o'clock and it was 10:45 before the last precinct delivered its ballots to the central counting board, which finished its task at 5:15 the next morning, having consumed about six and one-half hours. The work of the board was admirably done. The accurate and expeditious manner in which the ballots were counted and transferred could scarcely be over-praised. After the demonstration given in Kalamazoo, the objections to P. R. on the grounds of difficulty in marking and counting the ballots should entirely disappear. It is now clear that the people can mark a P. R. ballot with a very low percentage of error, even at a first election, and that it is possible to complete the count of such a ballot in a city of considerable size within a reasonable time.

There being 4,304 valid ballots cast, and seven candidates to be elected, the quota was 539. Both Connable and Upjohn exceeded this number, Connable receiving 875 votes and Upjohn 806. Thus Connable had a surplus of 336 and Upjohn a surplus of 267 votes to be distributed, or a combined surplus of 603 votes. The logic with which the voters marked their ballots was indicated by the manner in which this combined surplus distributed itself among the other candidates. Of the 603 votes only two went to Talbot, while Todd received 147, or enough to raise him from sixth to fourth place on the list. Martin received 132 votes from the surplus, raising him from seventh to sixth place. As the count proceeded, by dropping the low men and transferring their ballots, it became evident that Talbot would receive a very slight increment of votes in the transfer. The fact is, that while he stood third in the number of first

choice votes, he was the last man in the list to be elected. The men chosen to the commission in order of their election were: Connable, Upjohn, Martin, Todd, Shakespeare, Butler, Talbot. Some surprise was at first expressed that none of the Dutch candidates were elected. Inquiry developed that the candidates with Dutch names were not really representative of Dutch opinion in any marked degree. This is substantiated by the fact that as Dutch candidates were dropped and their ballots distributed to others, they did not go predominantly to other Hollanders.

On election day a number of leading men declared that should Talbot be elected, immediate steps would be taken to repeal the P. R. provision of the charter. As people began to see that, after all, a very representative council had been chosen, this spirit rapidly abated. One prominent citizen denounced P. R. as an "un-American" system and declared that if Talbot should be elected immediate steps would be taken to amend the charter so as to eliminate proportional representation. In the course of his remarks he indicated seven men, the selection of whom would, in his opinion, give the city the most representative council that could be chosen from the twenty-three candidates. The day after the election, his animus against the system seemed to be considerably less when he discovered that six of the seven men whom he had indicated had been elected.

It cannot be denied that the election of Talbot was regarded with bitterness by a large number of people. While many of these admitted that the council chosen was a representative one, their attitude was the same as was that of some citizens of Ashtabula, where the first proportional representation election resulted in the choice of Nick Corrado. The objection to proportional representation was not that it did not secure a representative council, but that it provided a council which was entirely too representative to suit the tastes of the more fastidious. The Kalamazoo Gazette which led the fight against Talbot undoubtedly stated the case fairly in an editorial the day following the election:

"The outcome of the election, distasteful as it is in some of its features to a great majority of the people, is, without question, the expressed will of that part of the electorate which went to

the polls and voted. Those who did not vote must abide by the mandate of those who did vote. All in all, a good commission has been elected, the majority of whose members are capable, sane, worthy and progressive citizens, and the will of that majority will prevail in the administration of our civic affairs."

Municipal Tax Levies for Iowa

(Continued from page 110)

the roads or streets of such city or town, and for no other purpose."

Under this section a town can levy a one mill tax for road dragging.

CITY HALL

Section 741-d and 741-e Supplement, 1915.

741-d. "City Hall. Cities and towns, including cities under commission plan and those under special charter, shall have power to erect a city or town hall and to purchase the ground therefor."

741-e. "Special Tax. For the purpose of paying for the construction of such building and the purchase price of such ground, such cities and towns shall have the power to levy upon all the property within the corporate limits of such cities and towns subject to taxation for said purposes in addition to all other taxes now provided by law, a special tax not exceeding in any one year two mills on the dollar for a period of years not exceeding twenty."

CITY BUILDING OR FIRE STATION

Section 741-j Supplement, 1913.

Tax for buildings and grounds in cities of the second class and towns.

"Cities of the second class and towns shall have the power to levy a tax not exceeding three mills on the dollar upon all the property within the corporate limits of said cities and towns, excepting lots greater than ten acres used for agricultural and horticultural purposes, for the purpose of creating a sinking fund to be used as provided in this chapter for the purchase or erection of a city building or fire station, or both, and necessary ground therefor."

FIRE DEPARTMENT

Chapter 131 Laws of the 37th General Assembly reads in part as follows:

Section 1. Levy for maintenance of fire de-

partment. That section seven hundred sixteen-a (716-a) as it appears in the supplement to the code, 1913, is hereby repealed and the following enacted in lieu thereof:

The council of any city, including cities under a commission plan of government with a population in excess of nine thousand (9,000) shall have the power to levy a special tax not exceeding six mills on the dollar each year, and the city council of any city with a population of nine thousand (9,000) or less shall have the power to levy a special tax not exceeding three mills on the dollar each year; and "the town council of any incorporated town shall have the power to levy a special tax not exceeding two mills on the dollar each year, upon all taxable property in said city or town, for the purpose of maintaining a fire department; and the money so raised shall constitute a fire fund and shall use such fund for no other purpose except that incorporated towns may use such fund to purchase fire equipment" provided, however, that in any cities under the commission plan of government having a population of ninety thousand (90,000) or over, said levy shall not exceed three (3) mills.

ROAD TAX

Section 890 of the Code provides for a tax of five mills on property not subject to other municipal taxes and section 616 of the Code explains what lands there are, namely tracts of land of over ten acres in extent used exclusively for agricultural or horticultural purposes.

These two sections taken together provide for a tax of not to exceed five mills on land of over ten acres in extent used exclusively for agricultural or horticultural purposes.

LABOR ON HIGHWAYS

Section 891 of the Code Supplement provides that town may provide for two days labor on the streets or payment of money in lieu thereof.

SANITARY DISTRICTS

Section 696-b Supplement, 1915.

"The council of any incorporated city or town, including cities operating under special charter and commission governed cities, may, by ordinance, provide for the establishment of sanitary districts for the collection and disposal of garbage and such other waste material as may become dangerous to the public health or detrimental to the best interests of the community, and for the oiling and sprinkling, flushing and cleaning of streets, and may adopt such rules and regulations as are necessary for the proper administration of the provisions of this act. It shall have authority to levy an annual tax within each district not exceeding two mills for a fund for the purposes of this act, and by vote of a majority of the voters voting on such proposition, may issue bonds for the purchase or erection of disposal plants."

Under this section the council may by ordinance create a sanitary district of the entire town or just a part of the town and then may levy by a special tax for any of the purposes mentioned including oiling and sprinkling.

Finances of Cities

Department of Commerce Gives Facts in Regard to Municipal Finances

In 129 of the 219 American cities of more than 30,000 population, the excess of expenditures for governmental costs, including interest and outlays for permanent improvements, over revenues during the fiscal year 1917, amounted to \$69,461,352, or \$3.90 per capita. In the remaining 90 cities the excess of revenues over expenditures was \$26,976,929, or \$1.75 per capita. Taking the entire 219 cities as a group, the excess of expenditures amounted to \$42,484,423, or \$1.28 per capita. The net in-

debtedness of these cities aggregated \$2,587,082,507, or \$77.78 per capita. Ninety-six cities, of 44 per cent of the total number, are operating under the commission form of government. These facts, together with many others of a related character, are brought out in a report entitled "Financial statistics of cities having a population of over 30,000: 1917", soon to be issued by Director Sam. L. Rogers, of the Bureau of the Census, Department of Commerce. This report, which was compiled under the

direction of Mr. Starke M. Grogan, chief statistician for statistics of states and cities, gives detailed data in respect of the revenues, the expenditures, the assessments, the taxes, and the indebtedness and assets of the 219 American cities each of which, on the medial date of its last fiscal year terminating prior to July 1, 1917, had an estimated population of more than 30,000.

The aggregate population of these 219 cities is estimated at 33,260,000, or more than 32 per cent of the total population of the country. Ten cities are estimated to have more than 500,000 population each; 11, from 300,000 to 500,000; 45, from 100,000 to 300,000; 62 from 50,000 to 100,000; and 91, from 30,000 to 50,000.

REVENUES

The total revenues of the 219 cities during the year were \$1,065,537,142, or \$32.04 per capita; the aggregate payments for expenses and interest, \$821,491,575, or \$24.70 per capita; and the aggregate outlays, \$286,529,990, or \$8.61 per capita.

Of the total revenues, \$742,320,878, or almost 70 per cent, represented receipts from various kind of taxes. The bulk of this amount, \$666,402,637, was derived from the "general property tax", made up of taxes on real and personal property. Of the remainder, the largest item, \$36,974,797, was contributed by taxes on the liquor traffic. This amount was smaller than the corresponding sums reported for the fiscal years 1915 and 1916—\$39,606,956 and \$38,024,542, respectively—although the total number of cities covered by the inquiry has been increasing from year to year.

Next to taxes, the largest source of revenue was found in the earnings of public service enterprises, which amounted to \$106,158,783. This sum is considerably more than double the amount of payments for expenses of public service enterprises, \$46,625,421. The bulk of the earnings of these enterprises came from water supply systems, from which the receipts aggregated \$83,858,440.

Another important source of revenue consists of special assessments and special charges—levied mainly to defray the cost of outlays—which amounted to \$83,195,596.

EXPENDITURES

An examination of the per capita figures for the cities covered by the report brings out

the somewhat surprising fact that, although the per capita expenditures for net government costs in individual cities vary greatly, there is little difference in the averages for the several size-groups of cities having fewer than 300,000 inhabitants. The average for the 91 cities having from 30,000 to 50,000 inhabitants was \$25.11; for the 62 cities of 50,000 to 100,000, \$24.75; and for the 45 cities of 100,000 to 300,000, \$26.39. For the larger cities, however, considerably higher figures are shown—\$37.50 for the 300,000 to 500,000 group, and \$38.17 for the group having more than 500,000 inhabitants each; but the difference between these figures and those for the other three groups are due in part to the fact that per capita county expenditures are included in the figures for such of the larger cities as are situated in counties. This has been done in order to provide a fair basis of comparability in the case of the larger cities, in some of which the functions usually pertaining to counties are discharged by the municipalities, while others are situated in counties and are dependent upon county organizations in this respect. The report shows, under principal heads, the amounts of county revenues and costs so included.

A comparison of the figures for the 146 cities in regard to which data are available for earlier years as far back as 1903, shows that the per capita governmental cost payments increased from \$24.64 in that year to \$33.26 in 1917, or about 35 per cent. This increase appears mainly in the items for expenses of general departments and interest, the former having advanced for \$13.25 to \$19.53, and the latter from \$2.06 to \$3.66. The per capita expenditures for outlays for permanent improvements were only slightly greater in 1917 than in 1903—\$8.68 in the later year as against \$8.23 in the earlier; and the 1917 figure shows a decline from \$10.60 in 1915 to \$8.91 in 1916. The per capita expenses of public service enterprises increased moderately from \$1.10 in 1903 to \$1.39 in 1917. These expenses, however, are less than half as great as the net revenues from such enterprises, which increased from \$2.42 per capita in 1903 to \$4.13 in 1917.

Since the number of cities covered by the statistics is increasing from year to year, comparisons with earlier periods are most reliable when

limited to those cities for which figures for the earlier as well as the later years are available. A comparison of this kind, embracing 146 cities and covering the period 1903-1917, shows a continual increase in the expenditure for governmental costs, including outlays, the total for the later year, \$1,007,290,346, being nearly double that for the earlier, \$514,189,206. The true significance of the increase, however, is better measured by the per capita expenditures, which increased from \$24.64 in 1903 to \$33.26 in 1917, the latter figure exceeding the former by nearly 35 per cent. The 1917 figure, it may be noted, although slightly exceeding that for 1916, \$33.13, was somewhat less than the corresponding one for 1915, \$34.53. During the same time the corresponding per capita for the Nation as a whole increased from \$7.91 to \$23.40. The figure for the fiscal year 1917, during a part of which the country was engaged in the war, was, of course, much greater than during normal times. During the preceding years, the per capita expenditures of the cities were roughly three times as great as those of the Nation.

The per capita expenditures of the 146 cities increased during the period 1903-1916 by 34.5 per cent, a rate somewhat greater than the corresponding one for the Federal Government, 31 per cent.

INDEBTEDNESS

The aggregate net indebtedness—that is, funded and floating debt less assets in general sinking funds—for the 219 cities amounted to \$2,587,082,507, or \$77.78 per capita. The corresponding figure for the Federal Government was \$1,908,635,224, or \$18.56 per capita. The Federal indebtedness, although greatly increased during the fiscal year 1917 as a result of America's entrance into the war, was thus on July 1, 1917, less than one-fourth as great per capita as the indebtedness of the cities of over 30,000; and even as late as March 31, 1918, a little more than a month before the issue of the Third Liberty Loan, it was only slightly greater than \$90 per capita, or about one-sixth greater than the per capita net indebtedness of the cities. A comparison for the latest normal year, 1916, shows the net indebtedness of the cities having more than 30,000 inhabitants as equal to \$76.64 per capita, a figure nearly eight times as great as the

corresponding one for the Federal Government, \$9.77.

The net indebtedness of New York City alone, \$987,347,610, was more than three-fifths as great as the total for all other cities of over 30,000 taken together, and more than eight times as great as the net indebtedness of Philadelphia, which ranked second in this respect with \$121,316,234. The per capita indebtedness of New York City, \$176.22, was greater than that of any other large city, but the corresponding per capita for Philadelphia, \$70.97, not only was much below the average for the large cities but was less even than the average for all cities of over 30,000. In per capita net indebtedness, however, Chicago and St. Louis, with \$28.70 and \$25.07, respectively, stood far below all the other large cities and most of the small ones.

Seventy-eight of the cities decreased their indebtedness during the year, while 141 reported an increase. The proportion of those decreasing indebtedness is somewhat larger than in 1915 or 1916, due in part at least to deferring improvements and their accompanying bond issues because of war conditions, while maturing obligations were met as usual.

COMMISSION FORM OF GOVERNMENT

The commission form of government prevails in 96 of the 219 cities covered by the report. These cities, of which the largest is Buffalo, New York, are distributed throughout 28 states, and include also the District of Columbia.

Of 15 cities of over 30,000 inhabitants in which the matter of adopting the commission form of government has been submitted to popular vote during the past four years, seven adopted the proposed change and eight rejected it.

MUNICIPAL BONDS

The past month has developed a very strong and active municipal market, with a tendency toward high prices. Two months ago the bonds of prominent Eastern cities were selling on a 5% basis, while June saw sales as low as 4.30%. This was the basis on which the \$5,500,000 Philadelphia 4½'s were offered to the public. New issues of \$305,000 Albany, N. Y., 4¾'s and \$1,470,000 Buffalo, N. Y., 4½'s were offered on a 4.45% basis and \$1,073,000 Newark, N. J., 5's on a 4.55% basis, all of which found a ready market.—The Bond Buyer.



Holding Up the Nation's Defense

The telephone played a tremendous part in this Nation's mobilization for war. It continues vital to the Government's program.

At the same time it has remained at the service of the whole people whose demands upon it grow apace with that of the Government.

The public is entitled to the best service that it is possible to render. But the public has a partnership in the responsibility for good telephone service.

It takes three to make any telephone connection: the person calling, the company, and the person called. Without the co-operation of all three the service suffers.

The telephone company can make the connection, but no words can be heard at

one end of the line which are not properly spoken into the transmitter at the other. The relation between the speaker and the hearer is the same as the relation between the orator and his audience. It cannot be maintained if the orator turns his back to the listeners or if the audience is inattentive.

Telephone traffic must be kept moving. Speak distinctly—answer promptly—and release the line as quickly as possible. Don't continue reading when the bell rings.

These seem little things to ask the individual telephone subscriber, but when the individual is multiplied by millions all over this country, it is easy to see how important it is that *all* should co-operate.



AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy

One System

Universal Service

Classified Advertisements

Officers of members of the League of Iowa Municipalities may run one advertisement each month free of cost.

FOR SALE and immediate delivery—one 14x14 inch Ideal engine, center crank, serial No. 1866, speed 250 to 275 R. P. M., in first class condition. Has had very little use, and that on off peak loads. Also one Westinghouse generator with above engine, 60 K. W., single phase, 1100 volt, 60 cycle, 900 R. P. M., serial number 163567, and one exciter in good condition, complete with belt, brushes and rheostat, also ammeter and voltmeter mounted on marble switch board panel. Equipment also consists of 50 feet two ply, 10 inch leather belting, in first class condition. What is your best possible price on the whole equipment necessary for operation? Address city of Ames, Electric Light and Water Department. 218

FOR SALE—On account of purchasing a combined Street Flusher and Sprinkler, the city of Fort Dodge has two Sprinkling wagons which are being offered for sale at a bargain. The wagons are in excellent condition and will be sold cheap. If interested, write C. H. Smith, Commissioner, Fort Dodge, Iowa.

FOR SALE—On account of the city of Fort Dodge having purchased a combined motor driven Street Flusher and Sprinkler, we are offering for sale at a bargain, one Studebaker horse drawn air pressure Street Flusher. This Flusher has been used three years, but is in excellent working order. It is just what is needed for paved streets and will be sold cheap. Further information and price will be given by addressing C. H. Smith, Commissioner, Fort Dodge, Iowa.

FOR SALE—A good sprinkling wagon, Auston make, at a reasonable price. G. A. Tegeler, Dyersville, Iowa. 418

FOR SALE—One Seagraves horse drawn hose wagon and fire harness, same as new, for sale at less than half price. Address, J. O. Gregg, city manager, Iowa Falls, Iowa.

FOR SALE—All brass Artesian well cylinder 5¼x36 inches with bronze ball valves and 300 feet of 3½ inch Octegon selected ash wood rods fitted with dropped forge sucker rod couplings, suitable for pumping from deep well, using steam head or lever stroke. For particulars, address G. F. Taylor, city clerk, Stuart, Iowa.

FOR SALE—Having recently made arrangements with a power company to furnish electricity the town of Coggon has the following for sale. 1-28HP Bates & Edmonds double cylinder gasoline engine. 1-125 Volt 120 amp. continuous load D. C. generator, 1200 R M P. 1-55 volt 25 amp. continuous load D C generator, 1400 R M P. 1 fully equipped switch board. Everything in good condition. For information write F. W. Lindahl Town Clerk. 106

FOR SALE—Having recently made arrangements with a neighboring town to furnish electric current for lighting and power. The town of Shelby offers for sale a Gas Lighting Plant, complete in good running order will sell at a bargain, as the town has no use for it, address all communications to town clerk of Shelby, Iowa.

FOR SALE—The incorporated town of Milford has for sale 1 Davis carbide feed acetylene gas plant in perfect condition. Model B generator 75 pound capacity. 23 burners with fixturers. 150 feet ½ inch pipe. Will sell at a sacrifice. For information write J. E. Shelledy Clerk, Milford, Iowa.

FOR SALE—One Lukenheimer fire alarm, (steam) whistle, 5x12 inch copper cylinder; also one Schwartz Electric Co., No 3, 10 inch twin gong, both good as new but have no steam plant and can't use them. First best offer of cash gets them. A. W. R. Boller, Fire Chief, Nevada, Iowa. 418

FOR SALE—85 pieces, 12 feet lengths, 16 inch cast iron pipe; 22 pieces about 21 feet length, 4 inch, extra heavy galvanized with couplings; 8 pieces about 20 feet lengths, 4 inch extra heavy galvanized without couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized with couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized without couplings; 150 feet, 6 inch black pipe; one 20 inch valve, hub end; one 16 inch valve, hub end; one 20 inch sleeve; one 20 inch x 20 inch x 16 inch T; eight 4 inch x 4 inch x 3 inch T, hub; twenty 4 inch valves threaded; ten 3 inch valves threaded; ten 4 inch crosses; ten 4 inch Ts; six 3 inch dresser couplings; thirty 4 inch dresser couplings; ten 4 inch saddles and double straps; ten 4 inch to 3 inch galvanized extra heavy reducers; and eight Cook strainers No. 20. The above is all new and will be sold at a bargain. John I. Bell, commissioner, Marshalltown, Iowa. 917

FOR SALE—One Olson Standard Paving Brick Rattler, nearly new, Price \$75.00. This rattler has been used for about a mile of paving and is in good shape. If interested write P. H. Jones, Clerk, Manning, Iowa.

FOR SALE—The city of Colfax, Iowa, offers the following: Two National steam pumps capacity 500 gallon per minute equipped with Mason Regulators. Two boilers tested to carry 85 pound pressure. One Cameron pump 5 H. P. One National pump 5 H. P. This equipment is in good condition. Will sell all or part. If interested write for further particulars or call and inspect.—H. F. Cassidy, City Clerk.

FOR SALE—18 horse power Watrous fire engine, good as new, complete with 30 foot 4 inch suction hose, same being replaced by high pressure water system. Write or wire at once, for full particulars. Russell E. Whipple, chief, fire department. Lehigh, Iowa.

FOR SALE—Bates & Edmonds 35 H. P. upright engine, gasoline or kerosene, 2 cylinder, all complete, in good shape. Have installed transmission line current and have no use for engine. Address Percy Lyon, Clerk, Dike, Iowa. 617

FOR SALE—Having completed arrangements with a neighboring city to furnish our electric current we offer the following at a bargain. One 25 horse power special electric Fairbanks Morse engine. One 20 K. W. Peerless Generator. 60 Amp. hour battery and switch board instruments. Everything in good condition. Address Town Clerk, Hudson, Iowa

PAINTING—If you have water tower or anything in similar line you want painted, write W. O. Potter, Fredricksburg, Iowa

FOR SALE—Cities wanting or needing a milk laboratory apparatus can get a bargain by addressing, John Berwald, Mayor, Davenport, Iowa. 107

FOR SALE—A number of good gas meters. Will be sold at a bargain. W. D. Hanna, Clerk, Winfield, Iowa. 57

WANTED—Second hand 10,000 to 16,000 gallon storage tank for gasoline. Lock box 235 Sheldon, Ia.



MARSHALLTOWN, IOWA

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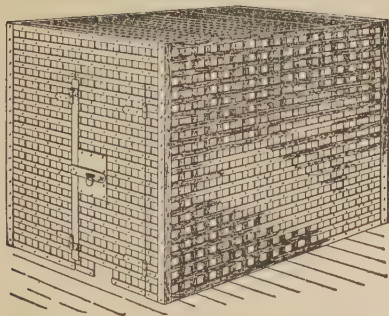
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¶ Every official of a member of the League is entitled to the services of this bureau and the service is absolutely free.

¶ If some question of law comes up at your meeting, and you are not sure of the law, all you have to do is to write the Secretary and he will set you right.

¶ If you want an ordinance on some particular subject write the Secretary and he will send you what you need.

¶ The Information Bureau is for your use and your benefit.

¶ The League wants you to make use of this Bureau and the more you use it the more you will value your league membership.

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¶ Address all communications to

FRANK G. PIERCE, Secretary,

May 1918

Marshalltown, Iowa



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American Municipalities

September, 1918

Vol. 35, No. 6

Entered as second class matter December 1, 1911 at the Postoffice at
Marshalltown, Iowa, under the Act of March 3, 1879.

Published by
Municipal Publishing Company
Marshalltown, Iowa

Frank G. Pierce, Editor

Subscription Price, - - - \$1.00 per year
Advertising rates made known on application

TO MUNICIPAL OFFICIALS

Municipal officials receiving American Municipalities need have no fear of incurring financial obligations. If you are not a subscriber, either the municipality you represent is a member of one of the Leagues of Municipalities and you are entitled to a copy free, or the copy you receive is a sample copy.

Resolution Adopted by League of Iowa Municipalities

That without evasion or reservation, we do promise that our every word, act and deed shall be in support of our President, our Governor, our Sons and Brothers,—the Sons of the Republic—and their Allies across the sea who are fighting the battle of liberty and freedom, the battle of the weak against the strong, of right against wrong.

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COMMENT

The twenty-first annual convention of the League of Iowa Municipalities will be held at Ames, September 17, 18 and 19, 1918.

Many valuable papers and reports will be presented and every municipal official in the state should make a special effort to attend this meeting.

The banquet Wednesday evening will be a patriotic demonstration with addresses by Governor W. L. Harding and Hon. Lafayette Young, chairman of the State Council of Defense.

Each of these men have a merited reputation as patriotic speakers and this one meeting will be worth all that it costs anyone to attend.

The question of utility rates during the war will be given careful consideration and the session dealing with this subject will be of the greatest importance and interest.

The problem of assessment and taxation of property will also be given attention and in addition to the report of the committee on taxation we will have a paper by Hon. R. E. Bales, secretary of the State Executive Council.

Then every municipal official will be interested in legislative matters and a legislative program to present to the next legislature will be adopted at this meeting.

The report of the committee on Judicial Decisions as always important and will be of special interest this year.

On Wednesday morning the department meetings will be held and these are of the greatest value to the different officials.

In fact, every minute of each day will be full of interest to every official who is anxious to give his people the best service of which he is capable.

You should make arrangements to attend this meeting and you will never regret the small trouble and expense necessary to do so.

The city officials and people of Ames are making all the necessary arrangements to entertain the delegates in a way worthy of that progressive city.

In addition to other attractions the Iowa State College, the greatest agricultural school in the country, is located at Ames and an opportunity will be offered all delegates to inspect this magnificent institution.

You will certainly miss a meeting, that you should not miss, if you do not attend this patriotic convention.

Federal Approval Required for Highways

Regulations Governing Policy During War Made Known by United States Highways Council

The United States Highways Council recently made public its regulations, effective September 10, governing highway and street work during the period of the war. Federal approval is required for practically all highway construction.

"No manufacturer", the council's announcement says, "will furnish any road building material until the project has been approved by the United States Highways Council."

The proposed work that should be first submitted to the United States Highways Council through the appropriate state highway department is defined as follows:

"All proposed highway, street, culvert and bridge construction, reconstruction and maintenance involving: (a) the issuance of bonds; (b) the use of rail or water transportation; (c) the use of coal or oil as fuel; (d) the use of cement, brick, asphalt, oil, tar, crushed stone or steel (also sand and gravel where shortage exists) as highway material."

The council urges that new highway and street construction be confined to most essential needs, and announce that it will give first consideration to the maintenance of highways already completed. Reconstruction is to be favorably considered only where it is clear that maintenance is no longer possible except at prohibitive cost.

MILITARY ROADS FIRST

New construction, it is announced, will be given consideration by the council in the following order:

First, highways and streets of military value, used regularly for the transportation of military supplies in considerable quantity, for the movement as an established practice of army-truck trains, or essential to the efficient operation of a military cantonment, post or plant; second, highways and streets of national economic value, serving directly to promote the national welfare and not merely local welfare; third, unfinished contracts involving contractual obligations (incurred prior to April 5, 1918, where bond issue is involved) which may not be disturbed without

serious consequence; fourth, streets and highways which although not of national importance are of extreme local importance, and the construction of which has progressed to such a point that serious hardship would be caused if their construction or completion should be postponed.

PLANS PROGRAM FOR 1919

The council is soon to begin, in co-operation with the Bureau of Public Roads of the United States Department of Agriculture, and the state Highway departments, preparation of a program of road and street construction, reconstruction and maintenance throughout the United States for the working season of 1919.

The purpose is to approximate the character and amount of work deemed essential for 1919, with the amount and character of financing and materials involved, and the probable demand on rail and water transportation and labor supply. The preparation of the program in each state is to be in charge of the state highway department.

The United States Highway Council is composed of a representative from the Department of Agriculture, the War Department, the Railroad Administration, the War Industries Board, and the Fuel Administration. Logan Waller Page, director of the Bureau of Public Roads, is chairman of the council.

PAY DUES PROMPTLY

This first of September the annual dues of the League of Iowa Municipalities are payable and each council should allow the amount at its first meeting.

The League will have a number of obligations that should be paid in the next few months and the officers desire to have the funds on hand to pay every obligation. The legislation will be in session this coming winter and the League always has considerable expense in looking after legislative matters. If you have not already allowed the bill for your annual dues, take the necessary action at your next meeting.

League of Iowa Municipalities

Preliminary Program Twenty-first Annual Convention at Ames

TUESDAY, SEPTEMBER 17

8:00 a. m. Reception and registration of Delegates, Secretary's office, Hotel Sheldon-Munn

10:00 a. m. Call to order, Council Room, Municipal Building

Address of Welcome, Hon. Parley Sheldon, Former Mayor of Ames

Response and President's Annual Address, Hon. Truman A. Potter, Mayor, Mason City

Report of Secretary-Treasurer, Frank G. Pierce, Marshalltown

Report of Committee on Legislation, Hon. Ben P. Poor, City Attorney, Burlington

Report of Committee on Judicial Decisions, Hon. Guy J. Tomlinson, City Attorney, Cherokee

Discussion of Reports by Delegates

Appointment of Committees. Resolutions Committee, Auditing Committee, Question Box Committee

(All questions for Question Box Committee should be in writing and handed to the Chairman of the Committee or the Secretary on the first day)

General Business

Reports of Municipalities

TUESDAY AFTERNOON

1:30 p. m. Report Committee on Public Utilities, Hon. John F. Ford, Mayor, Ft. Dodge

Report Committee on Municipal Franchises, Hon. W. C. Edson, Mayor, Storm Lake

Paper Municipal Ownership of Central Stations, Under Peace and War Conditions, Hon. G. J. Long, City Manager, Webster City

Discussion by Delegates

Report of Municipalities

TUESDAY EVENING

8:00 p. m. City Planning for Iowa Municipalities, Hon. Roscoe E. Sawistowsky, City Engineer, Davenport

Address: Social Diseases, Dr. A. J. McLaughlin, United States Army

WEDNESDAY, SEPTEMBER 18

9:00 a. m. Department Meetings

Cities Under General Law, Hon. W. C. Morden, Mayor, Maquoketa, Chairman; Council Room, Municipal Building

Cities Under Commission Plan, Hon. S. S. Menefee, Councilman, Ottumwa; Chairman Parlor Commercial Club

Cities Under Manager Plan, Hon. J. O. Gregg, City Manager, Iowa Falls, Chairman

TOWNS—Councilman S. A. Holcomb, Milford, Chairman, Main Room Commercial Club

ATTORNEYS—Hon. Henry Peterson, City Attorney, Council Bluffs, Chairman; City Attorney's office, Municipal Building

ACCOUNTING OFFICERS—Hon. C. D. Slippy, City Clerk, Oelwein, Chairman; City Clerk's office, Municipal Building.

ENGINEERS—Hon. J. Q. Wickham, City

The Officials and Citizens of Ames

Invite you to attend

The twenty-first Annual Convention of the League of Iowa Municipalities

at Ames September 17, 18 and 19, 1918

We will Make You Welcome and Show You a Good Time

E. H. GRAVES, Mayor

A. B. MAXWELL, Clerk

Engineer, Ames, Chairman; City Engineer's office, Municipal Building

WEDNESDAY AFTERNOON

1:00 p. m. Report of Committee on Taxation and Assessments, Hon. J. K. Baker, councilman, Eagle Grove

Address: Taxation and Assessment of Property, Hon. R. E. Bales, Secretary Executive Council State of Iowa, Des Moines

Discussion by Delegates

Paper: Municipal Bonds, Geo. M. Bechtel, Davenport

Discussion by Delegates

Paper: Needed Legislation Relating to Highway Improvement, J. L. Long, Davenport

General Business

Reports of Municipalities

4:00 p. m. Automobile ride about city and Iowa State College

7:00 p. m. Banquet tendered by Commercial Club of Ames

Toastmaster, Dean Charles F. Curtis, President Commercial Club

Address: Hon. W. L. Harding, Governor

Address: Hon. Lafayette Young, Sr., Chairman State Council of Defense.

THURSDAY, SEPTEMBER 19

9:00 a. m. Reports of Department meetings by the Chairman

Discussion of Reports by Delegates

10:00 a. m. Special Order of Business

Election of Officers

Election Place of Next Meeting

Paper: Conservation in Street Lighting, Professor F. D. Paine, Iowa State College

Discussion by Delegates

Report Committee on Water Works and Supply,

Hon. G. O. Gould, Councilman, Mason City

Final Report Committee on Legislation, Hon.

Ben P. Poor, Chairman, Burlington

Discussion by Delegates

Reports of Municipalities

THURSDAY AFTERNOON

1:00 p. m. Report of Auditing Committee

Report of Resolutions Committee

Report Question Box Committee

Unfinished Business

General Business

Adjournment

THE BOARD OF CONCILIATION

By agreement between the municipalities and the public utilities of the state, a Board of Conciliation has been established for the purpose of trying to settle rates disputes during the period of the war. Judge Wade and Judge Reed have both taken the position that during the war these controversies in regard to rates should if possible be settled without recourse to the courts and that any agreed rates should be in force during the period of the war. The Board of Conciliation have held several meetings and in a general way have outlined its policy. The work of the board and the policy to be adopted by the municipalities of the state will be up for discussion at the annual meeting at Ames and every city and town in the state in which there is a rate controversy should be represented at this meeting and assist in formulating a policy.

If a certain contemplated improvement will not directly help to win the war that improvement should be postponed at this time.

The League of Iowa Municipalities

Invites you to attend

The twenty-first Annual Convention

at Ames, Iowa, September 17, 18 and 19, 1918

This will be a win the war convention and you should be present

T. A. POTTER, President

F. G. PIERCE, Secretary

The Agitation for Higher Fares

William L. Ransom, Chief Council the Public Service Commission First District of New York

I find that among persons who are trying to approach in a broad and fair way these difficult problems of the war time conservation of essential public services, there are three or four inquiries which persistently arise:

“(1) What is the legal scope and significance of the recent decision of the New York Court of Appeals in the Rochester fare case (Matter of Quinby, 223 N. Y. 244) as to the binding effect of fare provisions in franchises granted by municipal authorities?

“(2) What is to be said as to the soundness of the court's ruling, as a matter of policy, and as to its practical consequences?

“(3) What is the legal and social significance, and what is the practical purpose, of the suggestion that purely intra-state and intra-city fares may be increased by federal action, either through the National War Labor Board or some other agency to which the president might “delegate” such power?

“(4) What use ought municipal and other public authorities to make of the power and discretion placed in their hands by the present trend of corporate necessities and judicial decision?”

There is need that municipal officers, representatives of civic and commercial organizations, and socially-minded citizens generally, should understand the new bearings of these questions and develop a consensus of opinion as to what should be done with reference to them.

THE SCOPE OF THE DECISION OF THE NEW YORK COURT OF APPEALS IN THE ROCHESTER CASE

The courts and public-service commissions of various states have been inclined to hold that even where a street railroad company has obtained the right to use a public street only by agreeing never to charge more than five cents for a single ride between points within the limits of a city, the commission nevertheless has power to authorize the company to charge more than five cents, without the consent of the city or a modification of the franchise contract. It has come to be generally recognized that if public-service com-

missions are to do their work effectively and justly, they must be in position to do justice alike to the railroad company and its patrons, and that such a concept of justice involves the raising of rates or the lowering of rates, as the facts may demand. The basic theory of modern public regulation of public utilities is that the regulatory body shall not fix a rate which is either too high or too low, and that the commission has not an ethical right to maintain in force a rate lower than it would have a legal right to establish.

There has been a failure to distinguish, however, between rates which are subject only to general regulatory standards of reasonableness and remunerativeness, and rates which the companies have, for reasons of their own and for the sake of obtaining something of financial advantage to themselves, brought within the purview of a contractual limitation.

THE ROCHESTER CASE

In the Quinby or Rochester fare case, in which I had the privilege of urging upon the Court of Appeals the view of franchise grants which it follows, the decision dealt with the effect of rate or fare limitations thus imposed by franchise contracts entered into by the street railroad companies with the municipal authorities. It was held that except to the extent that the company has, by its own voluntary act and contract, brought the city into the regulative plan by bargaining with it on the subject of fares, the Public Service Commission has been vested with power to increase or lower rates as the facts may warrant and the necessity demand; but that as to rates limited by the provisions of franchise contracts, the commission may not put the company in position to exceed the franchise maximum without first obtaining the city's consent.

At least as to franchises granted in pursuance of the provisions of Article III, Section 18, of the New York State Constitution (i. e., as to street railroad franchises), the Court of Appeals made this notable statement of municipal rights and powers:

“ . . . Our constitution, by requiring the consent of the local authorities, recognizes that our municipalities are *pro tanto* independent of legislative control, exercising some fragment of power, otherwise legislative in character, which has been thus irrevocably transferred by the fundamental law from the legislature to the locality. The grant by the municipality of authority to use the streets is not a mere privilege or gratuity. Once accepted, it becomes a contract which neither the state nor its agencies can impair. (People v. O'Brien, 111 N. Y. 1.),, THE SOUNDNESS OF THIS RULE, AS A MATTER OF POLICY, AND ITS PRACTICAL CONSEQUENCES

It will be noted that the New York courts have not ruled that a rate limited by a franchise contract cannot be increased when changed conditions and increased costs of operation make an advance in fare advisable. The decision is only that the fare condition in the contract cannot be changed unless both parties consent. If the company wishes to change the contract, it must first ask for modification, at the hands of the franchise-granting authority.

The practical bearings of the matter were strikingly pointed out in an opinion adopted by the Public Service Commission for the first district on June 6, 1918, (Re-Application of Third Avenue Railroad Company, et al):

“That many or all of these petitioning companies, and the “system” which they make up, need additional revenue or diminished expenditure, during the abnormal period of high operating costs, we have no disposition to deny. It is a duty resting upon the proper public authorities, of which one instrumentality is this commission, to secure to these companies an adequate rate for the service rendered—a rate which, if the volume of traffic be adequate, will yield a sum sufficient to maintain the service, preserve the property from deterioration, and reward the investors with a fair return upon their outlay. But it may be pointed out that the difficulties of these companies are largely of their own creation. We do not refer now to the era of pyramid financing, gross overcapitalization, wasteful expenditures, and the payment of dividends at the expense of the upkeep of the property. All of those incidents of earlier management are still having their effects; although such offenses against safe investment and good service have now been ended by the

enactment of the public service commission law.

“The difficulties of these companies as to franchise terms are of their own seeking. It is a matter of public recollection and record that the franchises were not forced upon reluctant and unwilling companies by rapacious municipalities which overpowered their capacity for resistance. The companies, at the instance of their boards of directors and high officials, sought these and similar franchises, fare-limitations, and all; they plotted for them, schemed for them, dickered for them, gave concessions and gained advantages, got something which they thought they wanted, something which they could capitalize and overcapitalize, long-term rights to use and occupy pivotal streets and avenues of the world's richest city. They gained favorable terms and for the sake of them accepted some terms which have now proved unfavorable, at least temporarily. But by the same legal concept (People v. O'Brien, 111 N. Y. 1) which has long denied the right of the municipality to impair or modify that franchise without the consent of the company, the company now finds itself unable to obtain a modification of a vital franchise term without the municipality's consent. The rule thus fairly works both ways, and the company has no right to expect that a commission created for the purpose of determining the reasonableness of rates should serve to relieve the company from temporarily “unprofitable terms” to which it perhaps “ill-advisedly agreed” in order to obtain street rights which it deemed of priceless value. The commission may well determine, under proper circumstances, what a company's rate or fare ought to be, but for release from a contract term, the company can hardly complain if it is required to repair to the municipality with which it made the contract. It was the company's solemn contract, not the commission, which gave the municipality an essential part in the mechanism and procedure for any re-adjustment of the company's rates.

“By these companies' own choice, the local municipality has both a power and a responsibility, and no resort to a fragmentary plan of charging for transfers should avail to enable these companies now to avoid dealing with the municipality as to the terms and conditions on which a modification as to fares will be permitted. The city may be unqualifiedly willing that an increased

fare on all surface and rapid transit lines shall be temporarily charged; it may be willing to consent to such an increase in return for terms and concessions of present or future public advantage; or it may not be willing to release the companies from their contract obligation at all. The matter of terms rests with the municipality, because the companies wanted the franchises so much that they bargained on the subject of fares and agreed to be ever bound by a five-cent limitation, at the city's option. When the franchise limitations no longer stand in the way, the companies may come to the commission for the fixation of a reasonable and adequate rate, notwithstanding statutory barriers."

A WAR MEASURE?

What is the legal and social significance, what is the practical purpose, and what would be the consequences, of the suggestion that purely intra-state and intra-city fares may be increased by federal action, either through the National War Labor Board or some other agency to which the President might "delegate" such power?

Within the month of July, the National War Labor Board will announce its decision as to the wage increases which it believes should be granted, to avert strikes and vouchsafe endurable living conditions among street-railway employees, in a score of the largest cities of the nation. Representatives of the companies and the officers and attorneys for the national labor organizations have joined in advising the board that the increased wages are necessary as well as just, and that in most instances advances in fares should precede the advance in wage scale. The same concert of action has urged upon the Labor Board the necessity of devising some means whereby federal action can cut the Gordian knot at one stroke and put increased fares generally in force, without right or power on the part of the state or municipal authorities to challenge, delay or prevent. Ex-President Taft and Mr. Walsh, joint chairmen of the board, and their associates are asked to share the belief of the companies and their organized employees that some way should be found of "by-passing" the propensity of state authorities for investigating increases and exacting terms!

THE UNDERLYING MOTIVE

Through all of the proceedings of the National War Labor Board thus far in this mat-

ter, the voice of the great public has been strangely silent and unrepresented. The novelty of the mechanisms set up for dealing with war-time problems and the diffidence which men feel about questioning anything urged as "necessary for winning the war", have perhaps combined to leave unrepresented before this tribunal the interests and the views of the rank and file of those who must pay increased fares out of household budgets already cramped and curtailed. I do not for an instant suggest here that the public interests would require that increases in wages and in fares be not recommended by the War labor Board; I only call attention to the especially interested atmosphere, out of which has come the clamor for federal action.

The suggestion that trolley and intra-urban fares be increased, for the period of the war by action of the War Labor Board or the president, has several aspects but one underlying motive. It is sought to make the fare increases (1) general; (2) uniform; (3) immediate; (4) for whatever period conditions warrant; (5) directly conditioned upon wage advances. But the underlying motive is to accomplish the increases in such a way as will evade and avoid the uncomfortable necessity of complying with franchise contracts, the scrutiny of public-service commissions and municipal authorities, the indisposition of the public contracting authorities to give up something for nothing, the inclination of governmental instrumentalities to feel that the time may be opportune for re-adjusting franchise terms in such a way as to eliminate the "pill-boxes" and "machine-gun nests" which are the bulwarks of the entrenched line of embattled privilege, and thus clear the way for better serving eventual public interests.

Have no illusions about it; the clamor of the companies for federal action increasing their fares is a clamor to escape a day of reckoning and re-adjustment. The big advances in railroad rates through federal action have whetted appetites. The street railway companies seek a way of getting the same thing without being embarrassed by state suggestions for public protection. They know that federal action would sweep franchises, contracts, commission orders, state laws and decisions of state courts into the discard, for at least the period of the war. Can

(Continued on page 151)

The Marshall County Plan

Successful Organization of War Activities on County Basis

The Marshall County, Iowa, plan of conducting war activities is not the product of the mind of any one man or number of men, but the result of gradual development, and the creation of an organization to meet conditions as they arose.

At the beginning of the war all of the different war activities were working independently. The chairman of the committees on Liberty Bonds, War Saving Stamps, the Red Cross, the Army Y. M. C. A., the Fuel Administration and other war activities were appointed by the state chairman of the respective activities or elected by the local organization. In addition to these various independent organizations, the County Council of Defense, the members of which were appointed by the governor, was also taking an interest in all war activities and trying to do its share in promoting the cause. This resulted in a number of organizations, and each time a drive was put on, more than half of the time and energy of the committee for that drive was spent in securing an organization and getting ready for the drive. The work of creating an efficient working organization was more difficult than doing the work after the organization was effected.

The County Council of Defense in December, 1917, decided that it would try to develop a strong central organization. At this meeting committees were appointed as follows, Conservation, Federal Aid and War Support, Loyalty and Co-operation, Selective Draft and Increased Production. At this meeting a motion was passed that the men appointed on the different committees, who were not members of the County Council of Defense, be elected ex-officio members of the county council. This was the first action taken by the county council to co-ordinate the war activities of the county.

At the February meeting of the County Council of Defense, further action was taken to co-ordinate the war activities of the county by electing the chairman of the Liberty Bond campaign, the chairman of the Four Minute Men,

the chairman of the Red Cross, the chairman of the Army Y. M. C. A., the County Food Administrator and the County Fuel Administrator ex-officio members of the County Council of Defense.

At the March meeting the question of allotment of the war funds between the different precincts of the county came up for consideration and the following resolution was unanimously adopted:

"Resolved that the allotment of war funds be made as follows: Red Cross membership and War Savings Stamps upon a per capita basis, Red Cross, Y. M. C. A. and all other war funds contributions, one-half upon a per capita basis and one-half upon basis of assessed valuation of all property for taxation, Liberty Loan purchases in the different precincts based upon the assessed valuation of the property in that precinct, and as between the different individuals living in each precinct, upon property valuation and income."

This fixed a definite plan of apportioning the funds to be raised by the different war activities, and all the people in the county now know just exactly upon what basis their quotas are fixed.

The experience of having all war activities centralized in the county Council of Defense was so satisfactory that at the May meeting a general plan of organization for the entire county was unanimously adopted enlarging and organizing the Council of Defense into a war service league to look after all war activities. The resolution embodying the plan is as follows:

"WHEREAS, there is urgent necessity at this time for co-ordination of all war fund campaign work and

"WHEREAS, the state directors of the Liberty Loan and War Saving Stamps organizations have asked for such co-ordination to be perfected at once, and

WHEREAS, the National Red Cross society objects to one war chest budget for all war funds as being prejudicial to the Red Cross

support;

"Be it Resolved, that the chairman of this Council of Defense together with the county chairman of the Liberty Loan committee, the county chairman of the War Savings Stamps committee, the county chairman of the Red Cross War Fund campaigns, the county chairman of the Y. M. C. A. War Fund campaigns, the County Food Administrator and the City Fuel Administrator be constituted a county executive committee to be known as the committee of county commanders to direct all war fund campaigns and to organize a league of war service volunteers to be known as the War Service League of the Marshall County Council of Defense.

"Be it further resolved, that said committee of county commanders act in each campaign under the leadership of that member who has already been appointed by his state director as county chairman of the particular war service then in hand, rotating the leadership of each campaign as each successive service comes up for county wide attention."

In order to carry the same plan or organization into each precinct the following resolution was also adopted:

"WHEREAS a permanent war service organization for all war fund campaigns would increase the efficiency of war work within the township precincts;

"Be it therefore resolved, that membership in this Council of Defense be enlarged to seven members from each precinct, each one of whom shall be precinct chairman of one special war activity; that so far as is possible the present precinct chairman of each war activity be made a member of this Council of Defense and retained in his present chairmanship and that such other persons be appointed by local councils as will constitute a local Council of Defense of seven members in each precinct, said local council being hereby authorized to appoint helpers to work under their direction and being instructed to manage all war service campaigns within their precincts."

Under this plan of organization there is a county Executive Committee of seven members, one representing each of the seven principal war activities and in each precinct seven chairmen each representing one of the seven principal

war activities, with the member of the Council of Defense as chairman of this precinct organization, but with a further provision that during the Red Cross drive the representative of the Red Cross shall act as chairman, during the Liberty Loan drive the representative of the Liberty Loan will be chairman and so on as the different drives come up.

In the county precincts these seven men do the work, with such helpers as they select. In the city the wards are divided into districts containing from six to nine blocks and seven men appointed in each of these districts who do the actual canvassing for these different war drives. These district workers, do not represent any particular war activity, but are the workers in all drives. The district plan was adopted instead of the block plan because it was found almost impossible to find a good worker in every block but seven good workers can be found in almost every district.

The members of this organization put on all the drives and the work is not complicated or duplicated by the work of woman's committees, lodge committees, boy scouts or any other organization.

In the last Red Cross drive this executive committee apportioned the amount to be raised in the county among the different precincts and the local council in each precinct apportioned the amount to be raised in that precinct among the people in the precinct. In this way everyone paid his just share and the patriotic, liberal man was not compelled to pay the share of the slacker. There are no slackers under this plan.

In the last Liberty Loan drive the quota for each precinct was fixed and the local council for that precinct fixed the quota for each one in the precinct. In the city, and in most of the outside precincts, a notice was mailed to each person notifying him of the amount of bonds he should take and asking him to call at headquarters and make his subscription. In some of the smaller precincts the entire Liberty Loan campaign was closed up in one afternoon, all the people calling at headquarters and making their subscriptions. In the city of Marshalltown the campaign was closed up in about four days. It was necessary to send for a few, not over a dozen in the city, and bring them to headquarters but in the

A ledger account is kept with each person in the county. There is a ledger for each precinct and the names are arranged alphabetically in that ledger. These records are open to the public and anyone wishing to know what a certain man has done for the different war activities can find out in a minute by calling at headquarters. Each person has a ledger page, the page being arranged as follows:

Everybody is pleased because the allotments are fair and they are efficiently enforced. Marshall County is organized for the period of the war, and every call can be and will be cheerfully and promptly met in the shortest possible time and with the least possible objection.

FRANK G. PIERCE, Secretary,
Marshall County Council of Defense.

[illegible]

Rates for Gas Service

By Mayor J. F. Ford of Ft. Dodge, Before Special Meeting of Iowa Municipal Officials

Some days ago, Mr. Frank G. Pierce, Secretary of the League of Iowa Municipalities, requested me to prepare a paper for this meeting of the representatives of the League on gas rates and service in Iowa cities and towns. Owing to the unusual amount of work in the office at this time, I could not give this subject the careful attention and time which it deserves, or rather the time necessary to prepare an instructive or intelligent paper on this very important subject.

The price of gas, however, must or should, at least, be governed by the cost of production and distribution to the customers, with a reasonable allowance for the profit on the investment. Cost cannot be said to be dependent on the investment and outlay necessary for manufacturing gas but must also take into consideration the cost of keeping equipment in good serviceable condition or to its highest efficiency. In other words, the plant and all equipment, so far as possible, should be kept in as good a condition for service continually as it was at the time of beginning operation of the plant.

The main elements, however, entering into the cost and rates of service are the investment in plant and equipment, labor necessary for the production, proper management and transaction of the business, and cost of material entering into the manufacture of the product.

In the investment for plant and equipment, there is always an opportunity for quite a wide difference of opinion and from this comes a corresponding difference in opinion as to cost of service.

The initial organization of a public utility service company naturally follows the demand of the public for the furnishing of a commodity that is a public benefit or necessity, and can be furnished at a much less expense to a community than the same product could be furnished to each individual.

Following the necessity or demand of the public for the service comes the franchise and ordinance regulating the service and cost for

same. In almost all cases, and it is particularly true of a gas service corporation, it is necessary to submit the question to the people of the community at large to determine whether or not a company will be permitted to operate in the city or town and upon what conditions such operation will be permitted. In addition to this, a preliminary survey and examination is necessary, all of which takes time and money and is, in reality, a part of the initial cost, and, although it does not add to the actual value of the utility, it is a part of the investment and, as such, is entitled to consideration in determining a reasonable rate for service that will give a fair return to the investor.

This item is sometimes referred to as organization expense, and, as such, is legitimate expense. I have no knowledge of any fixed rule to determine what is or would be a reasonable amount to allow for organization expense and it varies greatly in the different cases. However, it is not unfair, to say that 10 per cent is a very reasonable allowance.

The point I wish to call attention to is that we can not always rely entirely on the actual cost invested in equipment and property in determining a rate that will give a reasonable return, and furnish some attraction to the individual or company who proposes to finance the proposed public service utility. In determining values of property I would much rather accept some reasonable amount for the preliminary cost in addition to the actual investment than to arrive at a reasonable rate by taking into consideration the amount of bonds or stock issued and other evidences of investment, such as loans, mortgages, etc., to determine the amount on which a return should be computed. Stocks can be inflated and in many cases have been but actual values can be determined very readily and are a very safe and fair basis for computing returns on the investment.

In the matter of extensions on account of the growth of our cities and towns, there is an opportunity for some difference of opinion, as to

whether the cost of extensions can properly be paid from the earnings of a public utility or not. In cases where an extension is made on account of new additions and consumers are a considerable distance apart, as the case would be in new territory opened for residence purposes, it is not likely that the earnings would be equal to what they are in the older and more thickly settled districts. In such cases it would seem equitable to apply such an amount of the earnings as would be necessary to continue to give to the investors the same ratio of earnings on the entire investment, including the extensions, as they had been receiving previous to the making of the extensions. This can be accomplished only by applying part of the earnings on the construction of extensions in conjunction with new capital to such an extent as to produce a uniform and well balanced return from the entire outlay at all times. This plan might be considered unfair to the consumers who are furnishing, in addition to the cost of operating, a part of the capital for extensions, but unless some such plan is adopted it becomes a very difficult matter to induce the operator or investor to furnish additional capital for an extension that will tend to cut down their net earnings or their percentage of return on the total investment. The real justification for using a part of the earnings for necessary extensions would be with the object in mind that from the natural growth of our cities the number of consumers would eventually increase to such an extent as to cut down the service rate so that in time a saving would be made to all consumers. If such a result would be obtained, there would be some justification in combining earnings and new capital for the purpose of making extensions. In conclusion on this subject, it is only fair to say that if entire cost of extensions for a district or addition be made from the earnings of the utility it would be in the nature of a gift to the stockholders or investors as it would materially increase their holdings but unless some contribution from the earnings be made no conservative company would care to make an extension that would tend to reduce the percentage of return on the investment and the best results should be obtained by combining new capital with a sufficient amount of earnings to secure a well balanced return from a growing industry under normal conditions, in due time a substantial increase in business

would warrant a reduced rate and tend to the best interest to both producer and consumer.

The next element of cost to be considered in the manufacture of gas is the cost of production. This cost will vary greatly in different sized cities and towns and it is a difficult subject to treat in a general way. For example, the initial cost and overhead expense of production in the smaller cities and towns is invariably larger in comparison with the total output than it is in the larger cities. It is also true that the quantity of gas consumed or sold varies greatly in cities of the same size, this condition has a tendency to make a considerable difference in the first cost even in cities of the same size. For example, the city of Cedar Rapids has a monthly output of approximately 30,000,000 cubic feet. Mason City about one-half the size of Cedar Rapids has a monthly output of approximately 7,000,000 cubic feet. Fort Dodge although larger than Mason City has a monthly output of somewhat less. If the cities had practically the same population there would still be opportunity for a considerable difference in price. The distance the service must be carried to the consumer, the manner in which towns are laid out, have a bearing on the delivered cost and must be taken into consideration. If the topography of all cities was the same there would still be an opportunity for a difference. Take for example, in Cedar Rapids mains are laid for the most part in a clay and sandy sub-soil or formation, in Mason City a great part of the mains are laid in a rock formation making construction much more difficult and expensive, in Fort Dodge both clay and rock formation are encountered, some parts of the city extensions cost two and three times what they do in others. All of those varying conditions are found and all have a very material influence on the cost of production of gas and its delivery to the consumer.

Another matter to be considered, is the quality of gas produced. The standard is not the same in every city and many companies are reported as being lax in keeping the quality up to the required standard. An improvement might be made in this particular if there was a state regulation as to the quality of gas to be furnished by all gas service utilities.

There is only a slight difference in the cost of material and labor in the cities mentioned and

it is only fair to say that the common practice of comparing rates of different cities for the purpose of arriving at a reasonable rate to apply in any particular city is a very doubtful method. For example, the cost of laying a mile of gas main in Mason City might easily be four times what it would be in Marshalltown or some other city. The number of miles of main necessary to secure customers for the same number of cubic feet in Marshalltown might be double the number of miles necessary in Fort Dodge. The point I wish to bring to your attention is the fact that comparison of rates in the different cities is very apt to be misleading if used for a basis for determining what might be, as applied to cities of about the same size and class.

Practically every statement made in connection with cost of original construction work holds good when applied to replacement and repairs, particularly on the underground work.

The next item to be considered is interest and depreciation. On the subject of interest it might be easy to say that is a simple matter. Interest allowance should be what is commonly referred to as a fair return on capital invested, meaning in most cases from six to eight per cent. The annoying question of capital invested creeps in, however, and the query follows what does the investment represent, the cost of construction and such; or have we a forty or fifty per cent inflation of stock that is set up as part of the investment? Have we also an excessive promotion expense and a salary list of foreign officers? Each of those questions are entitled to consideration. Commenting on this phase of the subject, I might say the public utility owners of today are suffering on account of the transgressions of their predecessors for it was a very common practice twenty years ago to inflate stocks and then by influence or manipulation secure a rate that would insure a return on the investment. That represented double the actual or initial cost of the utility. It is only fair to say, however, that that vicious system is fast becoming a thing of the past, as it should be. I have said that the present day utility owners are suffering on account of the transgressions of their predecessors, this occasioned the lack of confidence existing in the minds of the consumers, for the reason of their suspicion that there is a nigger in the wood pile in the form of excessive or inflated valuation in

one form or another.

In the matter of depreciation, there is very often a misinterpretation of the meaning of the term. Depreciation is a fixed sum that is necessary to expend each year that a plant and equipment will be kept up to the same standard of efficiency continually, that is, that the plant at the end of a period of twenty-five or thirty years will be kept in such a state of continual repair and replacement as to be practically the same as new at the end of the period. The amount spent for this purpose in the different years must naturally vary and for depreciation in a gas plant about 3 per cent per year is considered reasonable.

A striking contrast is found in comparing a gas plant with an electric plant. The depreciation of an electric plant is much more rapid. An electric plant that was considered up to date 20 years ago would be almost obsolete today in comparison with recent equipment in electrical machinery. The overground work also deteriorates very rapidly and there is very little left of the original equipment after a period of twenty years, in fact 5 per cent is a very reasonable rate of allowance for an electric plant.

I might say further that practically all of the statements made with reference to gas companies' organizations might apply to electric companies' organization and promotion. It is the common practice to have gas and electric companies combined and, in my judgment, there is economy in this plan.

In closing, I wish to state that the elements that rightfully enter into the cost of service is the proper reasonable return on the investment, the operating cost, including all material and labor for production and replacement or upkeep. We find also that these items vary greatly. For instance, labor at the present time is double what it was four years ago. This is also true of material and I might say in some instances it is treble what it was five years ago. Another large factor in utility service is coal, that, too, is practically doubled. I was reliably informed that the cost of producing 1000 cubic feet of gas, at the present time, as compared with five years ago was almost double. Coke, coal, oil and labor all had increased practically 100 per cent in cost. The only redeeming feature in the operating cost was that the by-products had also increased, taking care of a part of the added burden. The

cost of producing water gas and coal gas at present prices for material and labor is in the neighborhood of 35 to 40 cents per 1000 cubic feet. The normal cost in previous years being in the neighborhood of 20 to 22 cents per 1000 cubic feet. This does not include any allowance on the investment or any expense but actual labor and material. This is the situation that confronts us in almost every city in the state. There is a rate contest pending in nearly one-half the cities in Iowa. It is necessary that we have an adjustment. To my mind there is only one plan of procedure and that is for the utility companies and municipal representatives to lay their cards on the table and have a general reckoning. I believe the municipalities are willing to give the service companies a reasonable return on their investment. While we do not want to encourage profiteering it is not a good time to be rushing into court for adjustments. There are plenty of opportunities for fighting outside of the courts. If there is any time in which our internal troubles should be lessened it is the present time, our money can be spent to a better advantage buying Liberty Bonds than paying court costs. I have appended hereto a schedule of rates for gas and electric service as returned to me recently and for your benefit I will read them and with that my paper closes:

GAS RATES

BURLINGTON: \$1.10 with discount. Raise been requested but refused unless company showed books and complete and detailed account of cost.

COUNCIL BLUFFS: \$1.10 net. Raise requested and granted. Present price \$1.30 net.

CHARLES CITY: \$1.35. Raise requested and granted. Present price \$1.60 net.

CEDAR RAPIDS: 90c. Raise requested but still under consideration by the city.

CHEROKEE: \$1.50. Raise requested and granted. Present price \$1.75 with minimum of 50c per month.

CEDAR FALLS: \$1.00. Raise requested but no action taken by the city.

CLINTON: 90c per m. feet: if paid by the 15th, 10% on bills of \$1.10 to \$3.20; 15% on bills of \$3.20 to \$6.00; 20% on bills from \$6.00 to \$10.00; \$10.00 to \$15.00 25% graduating to \$60.00 on same step, over \$60.00 5c for each m. cu. ft. No raise requested.

DUBUQUE: \$1.25 with 20% discount. No raise requested.

DAVENPORT: 90c. Contemplated request for raise by the company of \$1.00.

DES MOINES: 90c. Raise requested but denied.

FORT MADISON: \$1.30 with 15% discount. Raise requested but no action. Graduated scale—first 5000 \$1.15 net, over 5000 \$1.10 net.

IOWA FALLS: \$1.50. Raise requested, city offers \$1.75 but company refuses to accept. City restrained by an injunction from enforcing he ordinance and company collecting an increase of 25c. The case is now in court.

KEOKUK: First 2000 \$1.25; next 3000 \$1.20; next 5000 \$1.10; next 5000 \$1.05; next 10,000 \$1.00; next 25,000 95c; all excess 85c. Discount 10c. Minimum 50c per mo. Raise requested and granted. Present price—first 2000 \$1.35; next 3000 \$1.20; next 10,000 \$1.10; next 10,000 \$1.05; next 25,000 95c; all excess 85c. Discount 10%. Minimum 50c per mo.

MASON CITY: \$1.15 per m. Additional 10c if not paid by the 15th. Raise requested and granted a 15% advance for period of the war.

MUSCATINE: \$1.10 per m. May 1st, 1914, 2c per m. cu. ft. reduction each year until \$1.00 per m. cu. ft. is reached. 10c additional if not paid before the 10th of the month. 50c minimum charge including meter rent. Raise requested and council has appointed one representative, company one and they two select another to investigate cost. Price at present—\$1.02.

MARSHALLTOWN: \$1.00 per m. Raise has been requested and city has case in the Federal Court. Paying \$1.40 now under injunction.

OELWEIN: \$1.50 per m. discount of 10c per m. Raise was granted but reduced to old price again.

PERRY: \$1.35 net except money meters \$1.50 net. Raise requested and case in court. Court fixed \$1.70 net temporarily.

SHENANDOAH: \$1.75 with discount of 10%. Raise requested but not granted. Present price \$1.75 but grant no discount.

SIOUX CITY: First 10 m. \$1.10; next 20m. \$1.00; next 20 m. 90c; over 50 m. 80c.

ELECTRIC RATES

CEDAR RAPIDS: Charge before the outbreak of the war—13-5. No advance been requested by

the company since that time. Present price 11-5.

CLINTON: Charge before the outbreak of the war—10c per k. w. first 35; 15% discount on next 15 k. w.; 20% on next 25; 25% on next 25 graduating successively to 5c per k. w. No advance been requested.

CHARLES CITY: No change in rates since war period. Charge before breaking out of the war maximum 14 cents, minimum 6 cents. No advance been requested.

COUNCIL BLUFFS: No change in rates since the beginning of the present war and no advance has been requested. Present rate—first 1500 6c net,, next 1500 5c net and excess of 3000 2.5c.

CHEROKEE: No change in rates since the beginning of the present war period. Charges previous to breaking out of war, maximum 15c per k. w. h. No advance been requested.

CLARINDA: No change since beginning of the present war period. Charges previous to breaking out of war 12c per k. w. hr. Advance has been requested and allowed a 20% increase, without change of rate by ordinance and subject to change by City Council.

CEDAR FALLS: Rates were lowered May 1st, 1917. Previous rate maximum 11c, and minimum 2½c. No advance has been requested. Present rate 10c maximum and minimum 2½c.

DUBUQUE: No change in rates since beginning of war period. Rates previous to breaking out of the war, maximum 10c and minimum 2c. No advance been requested.

DES MOINES: No change made in rates since the beginning of war period. Rates previous to war period, residence 6 6-10, business adjusted according to load, amount and time. No advance has been requested.

FORT MADISON: No change made in rates since the beginning of war period. Rates previous to war period, 8c per k. w. No advance has been requested.

IOWA FALLS: Change since the beginning of war period. Rate previous maximum 12c. Advance requested and allowed 10% increase with a minimum of \$1.00 instead of 50c per month. Present price, 13c for first 10 k. w. and 7c per mo. over 30 k. w. with 1c per k. w. for discount if paid before the 10th of the month and \$1.00 minimum per month.

KEOKUK: No change in rates since war period. Charges previous to war period, 8c

maximum and 2c minimum, and no cash discount and minimum 50c per mo. No advance has been requested.

SIOUX CITY: No change in rates, since war period.

MARSHALLTOWN: No change in rates since war period. Charges previous to war period 12c, 7c and 5c. No advance has been requested.

MASON CITY: No change in rates since war period. Charges previous to war period, 12c maximum and 4c minimum, and 1% added if not paid by the 10th of the month. Request for advance and granted ½c per k. w. hr., for commercial and residence purposes and ½c per k. w. hr. for power purposes.

MUSCATINE: No change in rates since war period. Charges previous to war period, 13½c maximum and 7c minimum and 1c added per k. w. if paid after the 10th of the month. No request for advance.

OELWEIN: No change in rates since war period. Charges previous to war period 10c maximum and 6c minimum. No advance has been requested.

PERRY: Charges previous to war period, 14c max. and 10c. Present price 20c and 15c.

SHENANDOAH: No change in rates since war period. Charges previous to war period, 13½c max. and 6½c min. with discount of 10%.

WEBSTER CITY: No change in rates since war period. Charges previous to war period, 7c max. and 5c min. with 1c per k. w. discount. No advance been requested, municipally owned.

A BOOST FOR MUNICIPAL OWNERSHIP

Now that the utility companies are complaining that they are losing money under war conditions would be an excellent time for municipalities to offer to buy the different plants. If a company is losing money and must pay eight or nine per cent for money they should be willing to sell their plants at a reasonable price and as long as the municipalities can borrow money at around five per cent it would seem that it would be good business for the owners of the utilities to get out from under a losing game, and unload on the municipalities. The municipalities will have little or no trouble in financing the purchase of an electric light, gas or water plant. When the company complains that it is losing money, make a proposition to buy the business and the chances are that the owners will still think it a very valuable plant even though it is losing money.

Sources of Municipal Revenues

Business Taxes, General Licenses, Liquor Licenses and Other Sources

During the fiscal year 1917 the 219 American cities having more than 30,000 inhabitants derived only 3.5 per cent of their total revenues from the liquor traffic. The proportion represented by this figure has shown a continuous decline during recent years, having fallen from 6.4 per cent in 1907 to 5.5 per cent in 1909, 5 per cent in 1911, 4.8 per cent in 1913, 4.2 per cent in 1915, and 3.5 per cent in 1917. These proportions refer in each case to the group of cities estimated to have more than 30,000 inhabitants in the year specified. This group comprised 157 cities in 1907 and 1909, 193 in 1911, 199 in 1913, 204 in 1915 and 219 in 1917. The foregoing are among the outstanding facts presented in a report entitled "Specified Sources of Municipal Revenue, 1917", soon to be issued by Director Sam. L. Rogers of the Bureau of the Census, Department of Commerce, and compiled under the supervision of Mr. Starke M. Grogan, chief statistician for statistics of states and cities.

For the 219 cities of over 30,000, taken as a group, the proportions which the various classes of revenues formed of the total during the fiscal year 1917 were: Property taxes, 63.9 per cent; earnings of public service enterprises, 10 per cent; special assessments and special charges for outlays, 7.8 per cent; highway privileges, rent and interest, 5.5 per cent; subventions, grants, gifts, donations and pension assessments, 4.1 per cent; liquor taxes, 3.5 per cent; earnings of general departments, 2.5 per cent; business taxes other than liquor (including those collected without the issue of licenses) and non-business license taxes, 2.1 per cent; fines, forfeits and escheats, five-tenths of one per cent; and poll taxes, two-tenths of one per cent.

The progress of the movement for the suppression of the liquor traffic since 1903 is indicated in a rough way by a comparison of the proportions which the number of cities receiving liquor taxes represented of the total number covered by the 1903 and 1917 reports, respectively. In the earlier year 133 cities out of a

total of 146, or more than nine-tenths, received liquor taxes; whereas in the later year only 155 cities out of a total of 219, or about seven-tenths, received such taxes. So pronounced has been the decline in municipal revenues from liquor traffic during recent years that the gross amount of such revenues dropped from \$41,364,527 for 199 cities in the fiscal year 1913 to \$39,606,956 for the 204 cities in 1915 and to \$35,974,797 for the 219 cities in 1917.

The falling off in this class of municipal revenues has become a matter of sufficient importance in the judgment of the Census Bureau, to justify a study of certain sources from which revenues can be derived to take the place of those formerly supplied by the liquor traffic. These sources are specified as "Special assessments, business taxes other than on the liquor traffic, general license taxes, and license taxes on dogs".

PROPORTIONS WHICH LIQUOR TAXES FORMED OF TOTAL REVENUES

The percentages which the receipts from taxes on the liquor traffic formed of the total revenues in the cities which collected liquor taxes during the fiscal year 1917 ranged from 16.2 per cent in East St. Louis, Illinois, to seven-tenths of one per cent in New Castle, Pennsylvania. For the ten cities which, according to the census of 1910, ranked highest in population, the percentages that liquor contributed to the total revenues during the fiscal year 1917 were as follows: New York, 2.2; Chicago, 8; Philadelphia, 4.1; St. Louis 4.2; Boston, 2.7; Cleveland, 4.1; Baltimore, 5.6; Pittsburg, 3; Detroit, 3.1 and Buffalo, 3.2.

LICENSE TAXES ON BUSINESS OTHER THAN LIQUOR DEALING

Although the revenues obtained from the liquor traffic in American cities have always been small in comparison with those from property taxes, nevertheless they have been very much greater than those accruing from licenses on business other than the liquor traffic. These "other business licenses" yielded only nine-tenths

of one per cent of the total revenues of cities of over 30,000 during the fiscal year 1917; and during preceding years the corresponding proportion varied but slightly, having been equal to either one per cent or one and one-tenth per cent for each of the years for which figures are given in the report.

Some of the cities, however, raised considerable proportions of their revenues through license taxes of this character. Following is a list of those which reported 5 per cent or more of their total revenues as derived from such sources during the fiscal year 1917:

Per Cent	Per Cent
Birmingham, Ala. 17.1	Nashville, Tenn. 8.3
Montgomery, Ala. 14.8	Portsmouth, Va. 7.5
Lynchburgh, Va. 14.8	Macon, Ga. 7.4
Savannah, Ga. 11.3	Chattanooga, Tenn. 7.1
Norfolk, Va. 11.2	Shreveport, La. 6.9
Roanoke, Va. 11.0	Wilmington, N. C. 6.5
Mobile, Ala. 10.6	Atlantic City, N. J. 6.4
Charleston, S. C. 10.6	Springfield, Mo. 6.2
Columbia, S. C. 9.5	Atlanta, Ga. 6.1
Knoxville, Tenn. 8.5	Joplin, Mo. 5.5
Augusta, Ga. 8.4	Tampa, Fla. 5.0

Those cities in which municipal revenue from the liquor traffic is no longer received, or in which this form of revenue is about to be discontinued, and which are, therefore, in search of other sources of revenue, will find in the census report a valuable collection of data. There is given for each state a brief summary of the methods of raising revenues through special assessments, business taxes other than on the liquor traffic, general license taxes, and license taxes on dogs, and for each city of over 30,000 a detailed list showing the kinds of business on which license taxes are collected and the rates of levy.

The Agitation of Higher Fare

(Continued from page 141)

you blame them for trying to get away with it?

"What use ought municipalities and other public authorities to make now of the power placed in their hands by a condition of rising costs and the companies' need for exceeding the rates fixed by franchises? I believe there is a great opportunity for a firm, just, broad-minded, far-visioned assertion of the public right and interest. The thing the public needs and wants most is good, adequate, satisfactory service. The public cannot afford to force the deterioration and breaking down of public-utility properties, until service goes to pieces, operation becomes

unsafe, and the public needs are miserably met. The public utilities are entitled to have living income; the public interest demands that, no less than the interests of the utilities or the investors, unless public utility service is to go to pieces.

The municipalities ought not, in my judgment, to bar necessary increases in rates merely because they can bar them. A niggardly or narrow policy with the utilities is now most unwise. Increases really needed to wipe out operating deficits, meet increased costs of labor and supplies, pay legitimate fixed charges, and preserve a fair *quantum* of corporate income during the war, should be promptly granted, on an emergency basis for the period of the war.

The only question is one of terms. When the companies agreed to be and remain bound by a five cent fare limitation, they gained something of value for it, something which the public gave them in return for such a covenant. If now the companies wish to be relieved from their agreement as to fares, ought not each municipality to impose just, fair, reasonable, terms, as conditions of such a modification of the contract?

OUR MONEY'S WORTH

It appears to me that the turn of events has placed a wholesome and salutary power in the hands of municipalities—not a power obstinately and short-sightedly to block the rate increases necessary to a continuance of decent service, but a power to procure just and desirable changes in franchise terms, for future public protection. The time has come when broader aspects of the problem of intra-city transportation should be faced in a courageous and statesmanlike way. Lines and portions of lines which are no longer necessary or desirable should be abandoned, and not continued as drains upon resources of the systems. In many instances, rail lines on the surface are obsolete, and should give way to improved or economical facilities. "Water should come out of stock; the power of "extortion" possessed by the holders of "pioneer franchises", covering essential links of the present day system, should be broken.

The pendulum has swung; the fates have favored the public interest, if only the power is sanely and even-handedly used. Old franchises, granted in reckless disregard of public rights, as to duration, terms, and the like, may now be put upon a fair, modern social basis. The companies which ask public authorities to modify the fare provisions of franchise contracts will doubtless recognize the propriety of municipal insistence upon other charges in the public interest.

Fire Departments in American Cities

Department of Commerce Investigates Fire Departments

During the fiscal year 1917 the 219 American cities estimated to have more than 30,000 inhabitants maintained 3,790 paid fire companies, with 40,141 employees, and 162 volunteer companies having 14,472 active members; the total number of stations was 3,032; and the equipment included 994 motor propelled and 1,378 horse drawn engines. A number of the smaller cities now rely entirely upon motor propulsion of fire department apparatus. Separate high pressure service by direct pumping into fire mains is maintained by nine cities. The property losses by fire during the year aggregated \$71,842,170. The total value of fire department property was reported as \$111,202,201.

The foregoing are some of the more important statistical facts set forth in a report on fire departments in cities of more than 30,000 population, soon to be issued by Director Sam. L. Rogers of the Bureau of the Census, Department of Commerce, and compiled under the supervision of Mr. Starke M. Grogan, chief statistician for statistics of states and cities.

Of the 40,141 paid fire department employees, 35,827 were "regulars", the remainder comprising "call men", substitutes, "supernumeraries", civilian employees, etc. The officers in charge of these employees (exclusive of officers permanently detailed or assigned to organized fire prevention forces and certain volunteer officers not paid directly by the cities) numbered 7,635, comprising 215 chiefs of fire departments, 330 deputies or assistants, 275 battalion chiefs, 3,304 captains, 3,100 lieutenants, 106 master mechanics or superintendents of machinery and apparatus and 305 other officers. New York City's fire department chief draws the highest salary paid by any city, \$10,000. The next highest salaried official in this class is the fire marshal of Chicago, who receives \$8,000 per annum.

Volunteer fire service, subject to call, was reported by 32 cities, including New York and Chicago. The total membership of these volun-

teer fire service organizations comprised 14,472 on the active and 2,857 on the honorary rolls. By far the largest number of active members—5,840, or about two-fifths of the total shown for the 32 cities—was reported for Reading, Pennsylvania. In this city, as in several others, the entire fire fighting force, with the exception of a few officers, was made up of volunteers.

EQUIPMENT

The equipment of the fire departments in the 219 cities, exclusive of that owned by volunteers, comprised 1,826 steam and 546 gasoline pumping engines, 189 chemical engines, 2,778 hose wagons, reels and combinations, 1,115 ladder trucks and combinations with ladder trucks, 44 fire boats, 64 water towers, 2,248 vehicles, 7,950 horses, 7,458 portable extinguishers, 822 smoke helmets, 827 life saving nets, 258 life guns, 167 pulmotors, 6,605,183 feet of water hose, 532,093 feet of chemical hose, 118 pieces of hand drawn apparatus and 36 oxygen-acetylene cutting outfits. Forty-five of the cities covered by the report, including all but one of those estimated to have more than 300,000 inhabitants, have equipped their fire departments with water towers.

MOTORIZATION

Motorization of fire department apparatus during recent years is a matter of some interest. Of the total of 2,002 pumping engines in service, 1,071 are horse drawn steam engines, 402 are motor propelled steam engines, 529 are motor propelled gasoline engines. In addition, there are held in reserve 370 engines, of which 307 are horse drawn steam, 46 are motor propelled steam and 17 are motor propelled gasoline engines. Seven thousand nine hundred and fifty horses were employed during the fiscal year 1917 in the fire departments of the 219 cities having more than 30,000 inhabitants, as compared with 10,787 horses so employed in the 154 cities of over 30,000 in 1905. It is apparent, therefore, that although the horse is still a very important factor in the business of fighting fire, it is gradually yielding place to the more powerful

and speedy gasoline engine.

New York has gone farther than any other city of over 300,000 population toward the complete motorization of its fire engines. In that city 130 of the 216 engines in service, including all but one of those having a capacity of 800 gallons or more, per minute, are motor propelled. A considerable number of cities under this size, however, have completely discarded the fire engine horse. The largest of these is Toledo, Ohio, which has in service 14 motor propelled steam engines.

The largest pumping engine, a gasoline machine with a capacity of 1,595 gallons per minute, was reported by New Orleans.

FIRE BOATS

Although nearly half the total number of cities to which the report relates are located on navigable waters, only 17 of them reported fire boats. These 17 cities maintained a total of 44 fire boats, 24 of which were specially constructed so as to make them serviceable as ice breakers. These boats ranged in size from 15 to 450 tons displacement, in horsepower from 25 to 1,320, and in pump capacity from 750 to 12,000 gallons per minute.

HIGH PRESSURE SERVICE

Separate high pressure service by direct pumping into fire mains was reported by nine cities. These cities had a total of 72 pumps with a combined capacity of 157,848 gallons per minute, or an average of 2,192 gallons per pump.

FIRE PREVENTION

Although the familiar and spectacular features of fire department activities are those pertaining to the extinguishing of conflagrations, a no less important phase of the work is that having for its purpose the prevention of fires. The need of systematic inspection and fire prevention work is fully realized by the majority of city officials having to do with fire fighting, and the subject is receiving more and more consideration. According to an item in the August 1917, number of "The Modern City", fires in Los Angeles were reduced about 50 per cent during the first six months following the organization of the Bureau of Fire Prevention and Public Safety in that city.

Although only 16 cities—New York, Chicago, Philadelphia, Cleveland, Los Angeles,

Milwaukee, Newark, Washington, Seattle, Kansas City, Mo., Portland, Ore., Rochester, Columbus, Dayton, Bridgeport and Savannah—reported separate bureaus organized for the purpose of conducting fire prevention work, the majority of the 219 cities covered by the statistics reported fire prevention work in some form or other, usually the inspection of certain classes of buildings or hazardous districts by detailed members of fire departments, fire wardens, or fire marshals. Since the creation of the New York City Bureau for Fire Prevention there has been a substantial reduction in fire losses. Among the precautions put in force by this bureau are the daily inspection of tenements and the installation of fire-alarm systems in factories.

In Massachusetts, a metropolitan fire prevention district was established in 1914. At present this district comprises 10 cities and 1 town having more than 30,000 inhabitants, and 4 cities and 11 towns of smaller size.

RETIREMENT PENSIONS; CIVIL SERVICE REGULATIONS; TWO-PLATOON SYSTEM

Retirement pensions are in force in 153, or seven-tenths, of the 219 cities covered by the report, including all but ten of the 66 cities estimated to have more than 100,000 population. The most common rate of pension is one-half the rate of pay immediately preceding retirement. In most of the cities having retirement systems, the funds for their maintenance are made up wholly or in part from employees' assessments, the most usual rate being one per cent of salary; but in a few cases retirement pensions are paid without any assessment on the compensation of the employees.

In all cities of more than 300,000 inhabitants, the fire departments are placed under civil service regulations; and such regulations also prevail in 121, or 61 per cent, of the 198 cities having between 30,000 and 300,000 inhabitants.

In 16 cities, of which the largest is Pittsburgh, the "two-platoon" system has been adopted. In 11 of these cities the day and night shifts are 10 to 14 hours in length, respectively; in three, 12 hours each; and in two, 11 and 13 hours, respectively. The platoons alternate from day to night shifts at periods ranging in length from three days to one month.

FIRE ALARMS AND LOSSES BY FIRE

In the 219 cities there were turned in during

the fiscal year a total of 182,205 alarms, of which about 62 per cent were "still" alarms, that is, alarms sent in by telephone or reported by personal calls. Of the total number reported, 18,314, or about 10 per cent, were false; and of these, 5,408, or about three-tenths, were accounted for by New York and Chicago alone.

During the fiscal year the property losses by fire in 217 of the cities covered by the report (no data upon this subject having been obtained for San Francisco, California, and Wilmington, Delaware,) amounted to \$71,842,170, or about \$2.20 per capita. This loss was distributed as follows: On buildings \$27,076,484; on contents, \$37,480,233; on marine property, \$101,312; and on unclassified property, \$7,184,141. These figures do not include the loss, amounting to \$7,000,000, caused by the Black Tom explosion at Jersey City. Although Chicago reported more fire alarms than New York, the latter city's property losses from fire, \$8,746,404, were more than two and one-half times as great as those of the former, \$3,470,978. Chicago's fire losses were also exceeded by those of Detroit, which amounted to \$3,540,284.

VALUE OF PROPERTY AND COST OF MAINTENANCE

The total value of fire department property shown for the cities covered by the report amounted to \$111,202,201, of which sum \$68,823,522 represented land and buildings and \$42,378,679, equipment. The cost of maintaining the fire departments was \$59,332,184, including \$4,608,705 for outlays and excluding payments for pensions (made from funds derived in large part from assessments on employees' salaries) aggregating \$4,004,120. The total cost of maintenance was thus considerably less than the amount of fire losses.

LAW AUTHORIZING MUNICIPAL COAL AND WOOD YARDS CONSTITUTIONAL

The legislature in the state of Maine in 1903 passed a law providing that "any city or town may establish and maintain, within its limits, a permanent wood, coal, and fuel yard, for the purpose of selling, at cost, wood, coal, and fuel to its inhabitants. The term 'at cost' as used herein, shall be construed as meaning without financial profit." The city of Portland, Maine, voted to establish and maintain such a yard, pursuant to and for the purposes specified by this provision, and voted that the money necessary for such pur-

poses be raised by taxation. Certain citizens and taxpayers of Portland brought suit to enjoin the establishment of the yard, contending that it was not a public purpose, and that taxation, to accomplish that end, amounted to the taking of their property without due process of law.

The Supreme Court of the United States in the case of *Jones et al. v. city of Portland*, 38 Supreme Court Reporter, 112, upheld the Supreme Judicial Court of Maine in sustaining a demurrer to the bill, and quoted from the opinion of Judge Cornish in the case of *Laughlin et al v. city of Portland*, 90 Atlantic Reporter, 324, decided by the same court, as follows: "But it is urged why, if a city can establish a municipal fuel yard, can it not enter upon any kind of commercial business, and carry on a grocery store, or a meat market, or a bakery. The answer has been already indicated. Such kinds of business do not measure up to either of the accepted tests. When we speak of fuel, we are dealing not with ordinary articles of merchandise, for which there may be many substitutes, but with an indispensable necessity of life; and more than this, the commodities mentioned are admittedly, under present economic conditions, regulated by competition in the ordinary channels of private business enterprise. * * * The element of commercial enterprise is entirely lacking. The purpose of the act is neither to embark in business for the sake of direct profits (the act provides that fuel shall be furnished at cost) nor for the sake of the indirect gains that may result to purchasers through reduction in price by governmental competition. It is simply to enable the citizens to be supplied with something which is a necessity in its absolute sense to the enjoyment of life and health, which could otherwise be obtained with great difficulty and at times perhaps not at all, and whose absence would endanger the community as a whole."

Mr. Justice Day concludes his opinion as follows: "The authority to furnish light and water by means of municipally owned plants has long been sanctioned as the accomplishment of a public purpose justifying taxation with a view to making provision for their establishment and operation. * * * Heat is as indispensable to the health and comfort of the people as is light or water. In any event, we are not prepared to say when a state authorizes a municipality to tax with a view to providing heat at cost to the inhabitants of the city, and that purpose is declared by the highest court of the state to be a public one, that the property of a citizen who is taxed to effect such purpose is taken in violation of the rights secured by the constitution of the United States.

Information Bureau for Municipal Officials

All inquiries from officials of members of the League of Iowa Municipalities, will be answered free of expense

N. L. 810—Will you kindly let us know, if it will be legal for the town council to buy \$1000.00 of Liberty Bonds to be paid for out of General Fund. We have about that amount that we could spare out of our General Fund and we have thought that it would be wise to invest some of it in Liberty Bonds or War Savings Stamps.

While there is no specific provision in the law authorizing cities and towns to invest their funds in Liberty Bonds, and the Attorney General has held that such act was not authorized, yet I believe that no one would raise an objection to the town buying a thousand dollars worth of Liberty Bonds if they have that amount in the General Fund.

H. B. 811—I have a man who owes the town a water bill, who has now moved to Shaler, Iowa, in another county. Will I have to go to the county where he lives now to sue it, or can I sue it here?

It would be necessary for you to start suit against the man who owes the water bill in the county in which he now resides. The general rule of law is that suit must be started against a man in the county in which he resides except on a written contract providing that the amount will be paid at some other place.

E. E. D. 812—Over here we had a case where a family was quarantined for small pox. The father, and head for the family, was not shut in with the rest, but was out and worked every day. The wife called me over the telephone and asked if they could have something to eat from meat shop, grocery store and bakery. Since arranging with store keepers for the things to eat for them, some objection has arisen to the city paying the bills, so I ask you is the city liable for these things under these conditions or not.

I am inclosing you a statement of the law from which you will see that if the person responsible for the care of the patient is able to pay for these services, he must pay for them, and in case he is unable to pay for them, then the expense is certified up to the county and the county pays the same. If you will read over sec. 2571-a Code Supplement 1913 carefully I am sure you can see just exactly how to proceed.

D. K. B. 813—Is a person owning a farm of 17 acres within an incorporated town liable for the cost of oiling streets to which his property abuts?

In my judgment any land within the town limits is subject to the special tax for oiling the roads, but of course it would be a question as to whether farm land would be benefited in the same proportion as business property. In other words, if the council so desire, they can relieve the farm land of part of the cost of oiling the road in front of that land, and add it to the business properties down town. All special assessments are based on the benefits to the property, and of course business property would be benefited more than outlying properties. In my judgment, the council should, to the best of its knowledge and ability, fix the amount that different property is benefited and tax these amounts up to the different properties. Of course, they can take the front foot rule as a general rule, or if they desire they can as above suggested relieve some of the farm property and add more to the business property. If the council uses its best judgment in taxing up the cost in accordance with the benefits of the different pieces of property, I am very sure that the property owners have no recourse from the assessment.

C. H. T. 814—The council has at a special meeting directed a sidewalk be established in front of certain lots the standard width, and the clerk has notified the property owners of the council's action, but the property owners have promised to have the sidewalks built themselves. We have waited for them for about three or four months and nothing has been done. What would you advise being done to bring action? Does it necessarily have to have petitioners from both ends of the property in question? This property is in a three cornered piece and the property owners hold that the side walk would cost more than the actual value of each individual lot. Would this make any difference as long as the same man owned all the lots. Two lots would be full length and width and one lot would only be a part of a lot. He claims that we can force him to put walk in front of the two full lots but we cannot on the part of the lot.

In regard to your favor of recent date relating to sidewalks will say, that before you can order in a permanent walk in front of a man's property and tax the cost up to the property you must first have the permanent grade established on that street, and second you must have a sidewalk ordinance. If you have a permanent grade established on that street and the street is brought to the permanent grade, which is necessary before you can put in the sidewalk, then you should strictly comply with the provisions of your ordinance and if you do you can tax the cost of the walk up to the property. If, on the contrary, you do not have your grade established and the street brought to the established grade and do not have a sidewalk ordinance, then you cannot order in a walk and tax the cost up, if the property owner desires to fight the assessment.

So far as the three lots you speak of are concerned, I doubt very much whether you can assess the walk against those three lots as one piece of property. Certainly if the lots were owned by three different parties you could not tax the owners of the big lots for part of the expense of the walk in front of the small lot. The rule would be the same in my judgment whether the lots were owned by different parties or by the same party. I would not hesitate, however, about putting in the walk, because if a small lot is not worth the cost of the walk when I think that the town should certainly pay the difference and when the property was sold for taxes, the town should bid in the lot and it would be the town's property. If you put the walk in in front of this small lot and the property owner will pay part of the cost, the town can if they think best pay the difference, and I think that this would be the fair way to do.

A. E. J. 815—We are writing you for your decision and advice on matters enumerated below, we are enclosing a copy of our Ordinance herewith which deals with each of the cases.

A resident owns a dog and harbors same on his own property and refuses to pay the license; the dog is vicious and cannot be taken; would the marshal have a right and authority to go upon the owner's premises and shoot the dog?

A resident owning a dog lives on a farm within the limits of the incorporated town, said farm, however, is not platted, in this case can we collect license under the enclosed ordinance?

If a resident of your town owns a dog and keeps the same on his own property he cannot

be compelled to pay a license. The marshal will not have the right to go upon the owner's premises and shoot the dog, but on the contrary if the dog should bite anyone or injure any stock, then you can by complying with the law get rid of him. If this dog has bit anyone or injured any stock or has done anything to injure anyone, let me know and I will tell you the steps to take to get rid of him.

In the case of the owner of the dog that lives on a farm the same question comes up as to whether the dog is allowed to run at large. If the dog is allowed to run at large, that is, off from the premises of the owner then he must pay a license whether the owner lives on a farm or in the build-up part of the town, but if he is not allowed to run at large as above stated he cannot be compelled to pay a license.

MAN NOT RESPONSIBLE FOR WHAT LIVE CHICKEN MAY HAVE IN HIS CROP

Chapter 26 of article 3 of the Ordinances of New York City provides that no turkeys or chickens shall be offered for sale "unless their crops are free from food or other substances, and shrunk close to their bodies." One Baff maintains a slaughter house in New York City. The secretary of the department of food and markets of the state visited the premises and purchased a chicken, which he selected from one of the chicken "coops along the wall", and had it weighed and paid for it and took it out, and subsequently removed the crop, and found therein "cracked corn meal, looking like a mixture of meal and milk and sand". On these facts the city brought an action to recover the penalty prescribed for a violation of the above ordinance. The Appellate Division of the Supreme Court in the case of city of New York v. Baff, 167 New York Supplement, 1037, in an opinion by Judge Laughlin, held the action not maintainable, and said, adverting to the fact that it did not appear when, where, or by whom the chicken was killed. "It is manifest that the ordinance relates only to turkeys or chickens offered for sale after they have been slaughtered and dressed."

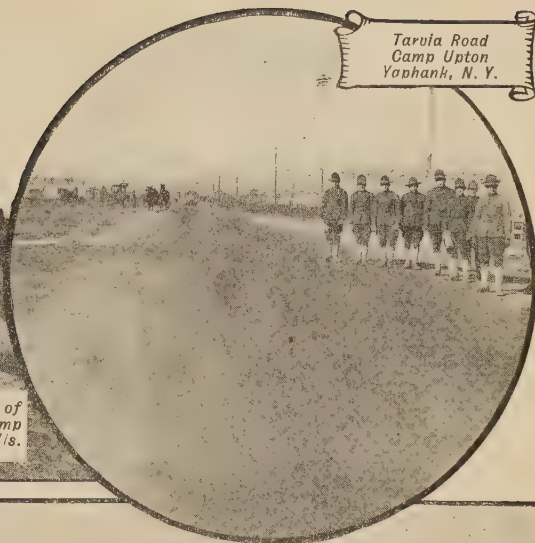
Every expense should be judged by the standard of war needs and nothing but the needs of the war should be considered at this time.

Tarvia

*Preserves Roads
Prevents Dust~*



*A small section of one of
the Tarvia Roads at Camp
Douglas, Juneau Co., Wis.*



*Tarvia Road
Camp Upton
Yaphank, N. Y.*



Tarvia Road at Camp Devens, Ayer, Mass.

Tarvia Road at Camp Dix, Wrightstown, N. J.

Tarvia Roads in U. S. Camps—

THE Government has built sixteen new camp-cities or cantonments for housing and caring for the new armies.

A cantonment is a miniature city of 40,000 inhabitants with the heaviest kind of traffic on the avenues.

Constant lines of automobiles, auto-trucks, mule teams, horses, artillery, and thousands of marching men fill the arteries of traffic. The road problems have been intricate and varied and above all speed in construction have been paramount.

Old types of road, the corduroy and the dirt road, were not adequate to the needs of these camps. *Good roads had to be supplied* in order to keep the tremendous camp-traffic moving.

Many miles of Tarvia roads were promptly built and are now giving entire satisfaction—

First—because they are smooth, durable and Water-proof.

Second—because they are neither dusty or muddy.

Third—because they are quickly built, and are easy to maintain in good condition.

Fourth—because they are most economical under the circumstances.

The use of Tarvia in these camps is an illustration of the versatility of the material and the service rendered by The Barrett Company.

The Tarvia was ready and the expert advice that went with it was put freely at the service of the government.

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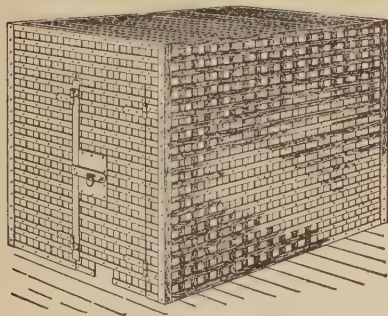
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FOR SALE—New and Second Hand Equipment. 2 new 60x60 inch Chapman sluice gates, bronze mounted, rectangular rising spindle, standard frame, each with 46 inch extended spindle, figure 476, page 208, list 89, catalogue No. 32, Chapman Valve Co.

2 heavy geared, double crank, ball bearing floor stands, with enclosed gears, for use on above gates. Fig. 442, page 173, list 76, catalogue 32.

25 feet new suction hose, diameter 20 inches, made of 15 ply hose duck, coated both sides, tube walls 3-16 inch steel, spiral wrapped, $\frac{5}{8}$ x2 $\frac{1}{2}$ inch pitch, corrugated.

600 second hand northern and western cedar poles, 22 feet and 25 feet, cut down from larger lengths. Good condition.

Miscellaneous lot of 24 inch and 36 inch cast iron pipe and fittings, approximately 36 tons. For details write T. R. Harber, Purchasing Agent, Kansas City Light & Power Co., Kansas City, Mo. 718

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FOR SALE—On account of the city of Fort Dodge having purchased a combined motor driven Street Flusher and Sprinkler, we are offering for sale at a bargain, one Studebaker horse drawn air pressure Street Flusher. This Flusher has been used three years, but is in excellent working order. It is just what is needed for paved streets and will be sold cheap. Further information and price will be given by addressing C. H. Smith, Commissioner, Fort Dodge, Iowa.

FOR SALE—A good sprinkling wagon, Austin make, at a reasonable price. G. A. Tegeler, Dyersville, Iowa. 418

FOR SALE—All brass Artesian well cylinder 5 $\frac{1}{4}$ x36 inches with bronze ball valves and 300 feet of 3 $\frac{1}{2}$ inch Octegan selected ash wood rods fitted with dropped forge sucker rod couplings, suitable for pumping from deep well, using steam head or lever stroke. For particulars, address G. F. Taylor, city clerk, Stuart, Iowa.

FOR SALE—Having recently made arrangements with a neighboring town to furnish electric current for lighting and power. The town of Shelby offers for sale a Gas Lighting Plant, complete in good running order will sell at a bargain, as the town has no use for it, address all communications to town clerk of Shelby, Iowa.

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FOR SALE—One Lukenheimer fire alarm, (steam) whistle, 5x12 inch copper cylinder; also one Schwartz Electric Co., No 3, 10 inch twin gong, both good as new but have no steam plant and can't use them. First best offer of cash gets them. A. W. R. Bolter, Fire Chief, Nevada, Iowa. 418

FOR SALE—85 pieces, 12 feet lengths, 16 inch cast iron pipe; 22 pieces about 21 feet length, 4 inch, extra heavy galvanized with couplings; 8 pieces about 20 feet lengths, 4 inch extra heavy galvanized without couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized with couplings; 14 pieces about 20 feet lengths, 3 inch extra heavy galvanized without couplings; 150 feet, 6 inch black pipe; one 20 inch valve, hub end; one 16 inch valve, hub end; one 20 inch sleeve; one 20 inch x 20 inch x 16 inch T; eight 4 inch x 4 inch x 3 inch T, hub; twenty 4 inch valves threaded; ten 3 inch valves threaded; ten 4 inch crosses; ten 4 inch Ts; six 3 inch dresser couplings; thirty 4 inch dresser couplings; ten 4 inch saddles and double straps; ten 4 inch to 3 inch galvanized extra heavy reducers; and eight Cook strainers No. 20. The above is all new and will be sold at a bargain. John I. Bell, commissioner, Marshalltown, Iowa. 917

FOR SALE—One Olson Standard Paving Brick Rattler, nearly new, Price \$75.00. This rattler has been used for about a mile of paving and is in good shape. If interested write P. H. Jones, Clerk, Manning, Iowa.

FOR SALE—The city of Colfax, Iowa, offers the following: Two National steam pumps capacity 500 gallon per minute equipped with Mason Regulators. Two boilers tested to carry 85 pound pressure. One Cameron pump 5 H. P. One National pump 5 H. P. This equipment is in good condition. Will sell all or part. If interested write for further particulars or call and inspect.—H. F. Cassidy, City Clerk.

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FOR SALE—Bates & Edmonds 35 H. P. upright engine, gasoline or kerosene, 2 cylinder, all complete, in good shape. Have installed transmission line current and have no use for engine. Address Percy Lyon, Clerk, Dike, Iowa. 617

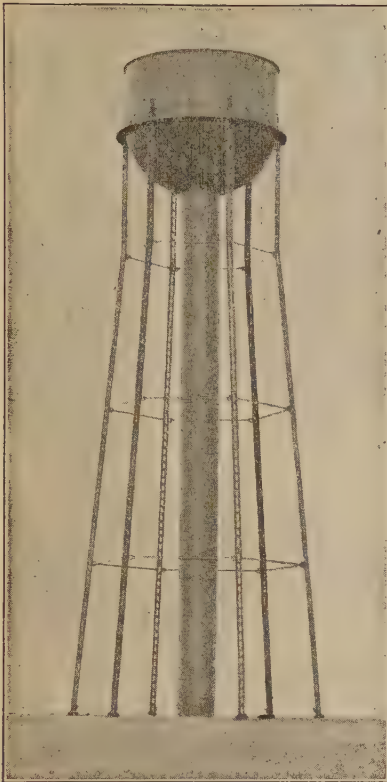
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FOR SALE—A number of good gas meters. Will be sold at a bargain. W. D. Hanna, Clerk, Winfield, Iowa. 57

FOR SALE—One Seagraves horse drawn hose wagon and fire harness, same as new, for sale at less than half price. Address, J. O. Gregg, city manager, Iowa Falls, Iowa.



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